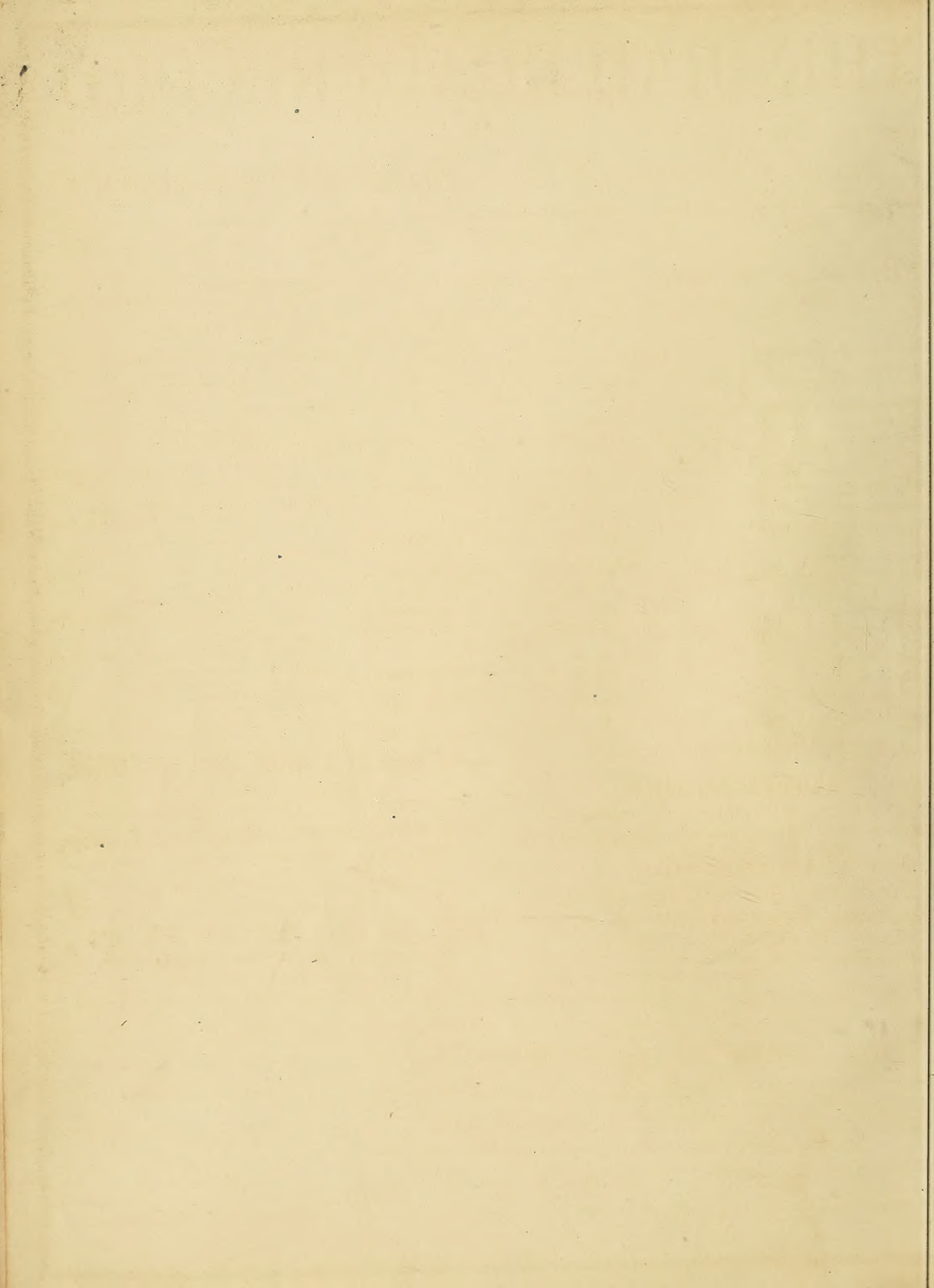


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THE RAILROAD RECORD

AND

Journal of Commerce, Banking, Manufactures and Statistics.

Vol. 16. No. 20.

CINCINNATI, THURSDAY, JULY 9, 1868.

WHOLE No. 800.

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We claim and are prepared to prove that the American Watches manufactured at Waltham, Massachusetts are not only equal, but far superior, to the watches of England, Switzerland and France. We also claim that they are Cheaper, More Accurate, More Durable, and more easily kept in order and repaired than any other watches in the market.

Because in each one of the very numerous parts of which a watch is made up we attain, by mechanical power, nearly absolute mathematical precision and uniformity, making every watch of any one style a true copy of its model.

This similarity in structure reduces the cost of production; it secures uniformity in results; infallibly, it perpetuates an excellence that may be once achieved, and makes it easy to repair any injury sustained, or replace any part that may be lost or destroyed.

In addition to these mechanical advantages, our Watches are simpler in structure, and they are stronger, and less likely to be injured than foreign watches.

How they run under the hardest trial watches can rave, is shown in the following letters:

PENN. RAILROAD COMPANY.

OFFICE OF THE GENERAL SUPERINTENDENT, }
Altoona, Pa., 15th Dec., 1866. }

Gentlemen:—That Watches manufactured by you have been in use on this railroad for several years by our engineers, to whom we furnish watches as part of our equipment. There are now some three hundred of them carried on our line, and we consider them good and reliable time-keepers. Indeed, I have great satisfaction in saying your Watches give us less trouble, and have worn and do wear much longer without repairs than any Watches we have ever had in use on this road. As you are aware, we formerly trusted to those of English manufacture, of acknowledged good reputation, but as a class they never kept time as correctly, nor have they done as good service, as yours.

In these statements I am sustained by my predecessor, Mr. Lewis, whose experience extended over a series of years.

Respectfully,

EDWARD H. WILLIAMS,

General Superintendent.

American Watch Co., Waltham.

NEW YORK CENTRAL RAILROAD.

LOCOMOTIVE DEPARTMENT, WEST DIVISION, }
Rochester, Dec. 24, 1866. }

Gentlemen:—I have no hesitation in saying that I believe the great majority of Locomotive Engineers have found by experience that Waltham Watches are the most satisfactory of any for their uses. They run with the greatest accuracy and steadiness, notwithstanding the rough riding of an engine, and as I have never known one to wear out they must be durable. I hope to see the time when Railway Companies will generally adopt your watches, and furnish them to all engineers and conductors. In my opinion it would greatly tend to promote regularity and safety.

Yours, respectfully,

CHARLES WILSON, G. Chief Engineer,

Brotherhood of Locomotive Engineers.

American Watch Co., Waltham, Mass.

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F. B. JORD, " " I. & C. R. R.
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LANE & BODLEY, and others.

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Appleton Brothers.

February, 1867.

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Wholly AMERICAN, and of the best quality.

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Cannel Coal Land,

IN

WEST VIRGINIA,

ON A

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FOR SALE BY

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SUPPLY AGENTS, MASTER MACHINISTS, AND others, are invited to examine our stock of Oils before purchasing elsewhere. Send for samples, and test thoroughly before buying. These Oils are warranted perfectly free of grit or acid. For economy, purity, durability, and cheapness, they are unequalled. Attention is called to a superior

Head Light Oil,

Which is branded to stand a fire test of over one hundred and fifty degrees. This will burn longer than any other oil. It engenders less crust on the wick. Will not congeal in the coldest weather. Gives greater brilliancy of flame, and has unqualified safety.

PACIFIC OIL WORKS CO.

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CINCINNATI

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ROBERT MOORE & SONS,

Manufacturers of

LOCOMOTIVES,

MARINE AND STATIONARY ENGINES, IRON AND BRASS CASTINGS, BOILERS, TANKS, ETC.

Also,

Repair and Rebuild Locomotives.

CINCINNATI

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. Editors

CINCINNATI,
THURSDAY MORNING, FEB. 24, 1868.

THE RAILROAD RECORD.

PUBLISHED EVERY THURSDAY MORNING.

BY WRIGHTSON & CO.

OFFICE—No. 100 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

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" " six months.....	12 00
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	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:50 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond and Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	6:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:0 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:40 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

AN ANNIVERSARY.

— OURSELVES,

AND

— WHAT WE HAVE DONE.

We are reminded by the date of this number, that it completes the Fifteenth Year of the existence of the RECORD. On March 3d, 1853, was opened the first number of the RAILROAD RECORD. It commenced with an article on "THE VALLEY OF THE MISSISSIPPI," as a suitable text for the work we were about to do; a steady and efficient advocacy of those great works of internal improvement which were to unite the people of the Mississippi Valley, extend its commerce, and develop the wonderful natural resources of a country unsurpassed on the face of the globe. Nor, was that labor all that we intended, nor all that we have done. We added to it a continuous and accurate journal, as implied in the name *Record* of all the facts of statistics, commerce and finance, which would be interesting or worth preserving.

In the article on the Mississippi Valley, we stated the then population of the Valley at 7,500,000. It is now about 17,000,000, an advance of 130 per cent. in fifteen years, and making nearly half the whole population of the United States. In that time, the railroads, whose interests we have specially advocated, have advanced at a still more rapid rate; and one line is already ascending the highest summit of the Rocky Mountains! Not even the losses of a mighty war have been able to arrest the progress of the Western States, which have already fulfilled all our anticipations of their growth and prosperity. Since the RECORD was established, Kansas, Minnesota and Nebraska in the Valley, and Oregon, California and Nevada on the Pacific, have been admitted into the Union.

At fifteen years after we commenced our Journal, and in the midst of such extraordinary events, we ask ourselves what we have done? Have we done a useful work in the community? Have we fulfilled our own expectations? In answer to these questions, let us state two or three facts, and submit them to the candid consideration of our readers:

1. Among the specialties of the RECORD is our persistent efforts for the construction of the PACIFIC RAILROAD. If there be any one reading this article, who has been a reader of the RECORD, or seen anything of its columns, he knows that we have never lost an opportunity, never spared an effort to carry forward that great object. When the Southern Texas Road was under consideration, we devoted ourselves to that, because it was the only one which was organized and promised success; but the unfortunate speculations of its mana-

gers, and the great excitements which preceded the war, caused the failure of the Texas Road. But, in the meanwhile, we had been incessant in our efforts to induce the Government to take up and construct, or aid the Great Pacific Line West, having been directly instrumental in securing the endorsement of the doctrine of Government aid by a dozen State Legislatures, and penned the resolutions that were incorporated as planks in the platforms of both political parties in the campaign of 1856. The total want or any remuneration from parties interested, did not act on our zeal, or lessen our hopes in its final result. At length it was taken by the Government, in the midst of the war, and is now advancing to triumphant success. Have we not done something useful in that, and may we not rejoice, even when unremembered, in a success, to which we have contributed more disinterested labor, than any other parties in the country?

2. Another thing we have never failed to advocate is the SOUTHERN ROAD. Regarding it as absolutely necessary to the growth of Cincinnati, we have labored for it in every way possible; and we still hope, that notwithstanding the lukewarmness of many, and the jealousies of others, that this great and necessary work may yet be accomplished.

3. Every enterprise connected with the city of Cincinnati, which could advance the public interest, we have advocated with zeal and earnestness. All that we could do we have done to promote the general welfare.

4. When we look over the volumes of the RECORD, we are astonished at what we have done. The mass of information on railroads, on commerce, on navigation, statistics and finance given in the RECORD, is exceeded by that of no other Journal in the country. It is a complete history of railroads, and a compendium of useful statistics.

When we look over all this, we rejoice that we have been able to do this; and we know, that it has been useful and salutary to the country. We regret nothing done in the RECORD, but we do wish that the popular taste, or the parties interested in many of these undertakings, could have made the work as profitable to us as it has been to the country.

As we write these lines, we are reminded of how and with whom we came to commence the RECORD. When the first number was proposed, WILLIAM WRIGHTSON was by our side, and for years he was ardently interested in this work. The reader knows how he lost his life, in a distant region, by the hands of savages. But the reader cannot know how we have regretted him, or how much of promised usefulness was lost in him.

The RECORD for ten years was and remains his monument, and if he were here, he would think with us, that we may well rejoice in such a work.

THE GOVERNMENT

NEEDS AND MUST HAVE

THE

NORTHERN AND PACIFIC ROADS.

There are objectors on all sides to any Government aid to the Pacific Roads, evidently on the hypothesis, that the Government gives aid to the roads without receiving a return! Something, as if the Roads were really receiving charity! Now these people ought to examine enough for themselves to know, that it is the Government, not the Companies, which needs aid. It is true, that the Companies may not be able to build them without the aid, and true also, that the Companies may make money by making them. But, what men in the world will undertake a business in which they are to make nothing? The American people are not unreasonable, and are quite willing that those who engage in great public enterprises should make fair profits. The Companies are not likely to make anything more. The first thing to be considered is, what is the *need* of such roads? And next, is the Government, as the land-owner of all those vast regions, the *very party* which most needs them? And next, *how* can the Government aid them, without increasing its debt, or impairing its capital; for we grant at once, that in the present situation of the country it is not desirable to do either of these. We must have the roads; but, we might put off the time of their completion a little longer. Let us consider, as we have done in former articles, whether it may not be done, and yet leave the Government without any additional burden. 1. As to the *need* of these Pacific Roads, we shall say no more about. There is West of the line of settled States, room enough for three or four great nations, and that room is unoccupied. Nor is that all, that country has some qualities which were never before found in so great an extent of country. It is full of mines of all that is precious or valuable in metals, and apparently to an unlimited extent. Next, it is from the extent of its mountains, streams, and winds, a very healthy country. Next, notwithstanding all that is said about its mountain and desert character (the latter part of which is mostly fiction) more than half that immense country is really cultivable land. There is, therefore, independent of all ideas of Pacific trade, a *need* of opening up that vast country for the sake of its resources, and the strength it will bring to the present States.

2. *Who?* What party most needs these roads? We say unhesitatingly, the Government. Who is the owner of those vast regions? Whose Treasury will be the gainer when they are cultivated? Not necessarily by the sale of the lands, but by *increasing*

vastly the basis of taxation, and the wealth of the country. Let us see what the extent of these countries are. The Census tables of 1860 gives the following results:

	Square miles.
Kansas.....	114,798
New Mexico.....	207,007
Nevada.....	97,000
Arizona.....	132,000
Dacotah.....	141,000
Minnesota.....	83,531
Montano.....	120,000
Idaho.....	180,000
Washington.....	123,000

Total..... 1,198,258

We have purposely left out of this table Nebraska, Colorado, Utah, Oregon and California, as being the region which will be specifically drained by the Central Pacific Road; for our object is simply to show how much the Government *needs* the Southern and Northern Roads. Now is the reader fully aware, can he comprehend the full meaning of the *fact*, that the above territories, the region of this country to be specifically supplied and benefited by the Southern and Northern Roads, is actually 300,000 square miles greater than the whole surface of the United States at the peace of 1783? And is more than two-thirds the surface of the United States after the purchase of Louisiana? At the peace of 1783, the whole surface of the United States was only 820,680 square miles; and after the purchase of Louisiana, which included nearly the whole Valley of the Mississippi, the entire surface was 1,720,259 square miles. We did not then possess an acre of New Mexico, Arizona, Nevada, and California. We can, therefore, begin to get an idea, by considering these facts, what a vast future of development in mines, arts, commerce, wealth and people there must be in a region which comprehends 1,200,000 square miles, enough to make *twenty large States*. But, people look at this as a wilderness, as a land of mountains and deserts. But, we know it is not so. We know the mountains are full of gold and silver and iron and coal, and that the vallies are rich in soil and well watered. Now, let us look and see how much the Treasury of the United States, and the Treasuries of the States are to gain by these Pacific Roads. In this way we shall see how much the Government *needs* these roads. Let us see, for example, how much and at what rate the *new States*, where railroads are advancing through them, gain wealth; for, people do not go into wild regions, where there are no communications. They follow the great rivers and railroads. For example, we see how rapidly towns and settlements follow the Union Pacific Railroad; and each town and ranche builds up the wealth of the country; and, into the very bosom of the mountains this road will carry people and commerce, just as much as into the States on the Mississippi.

Let us now take the growth of wealth and prosperity in the new States, where there are lines of commerce and railroads building.

	1850.	1860.
California.....	\$22,161,872	\$207,874,613
Iowa.....	23,714,638	247,338,265
Minnesota.....	.....	52,294,413
Oregon.....	2,063,474	28,930,637
Wisconsin.....	42,056,595	273,671,668
Nebraska.....	.....	9,131,056
New Mexico.....	5,174,471	20,813,768
Washington.....	.....	5,601,466

Aggregate..... \$98,171,050 \$845,656,886

Of these eight states and territories, three are in the very mountain region of which we speak, and have had no advantage of railroads whatever; yet, in ten years these new territories have increased in wealth *seven hundred and fifty millions of dollars*, or at the rate of 700 per cent. decennially; or 70 per cent. in one year! Now, we venture to say, that beyond all doubt, the territories we have enumerated on the Southern and Northern routes will increase at the same rate on their capital, *provided* the Southern and Northern Roads are made. Let us endeavor then, to see what the present worth of those territories are, and then see what they will be worth in 1878, if those roads are made. By taking the Census Returns of 1860, for a part of them and estimating the residue, we have the present worth of those territories as follows, in 1868:

Kansas.....	\$60,000,000
New Mexico.....	40,000,000
Nevada and Arizona.....	20,000,000
Dacotah, Montano and Idaho....	15,000,000
Minnesota.....	150,000,000
Washington.....	10,000,000

Total..... \$295,000,000

Now this basis of present wealth is nearly treble that of the eight States, whose increase in wealth we gave above. At any deduction which can be made for less fertile lands, this unrailed region, after the Pacific Roads are made, must increase one-third as fast as those in the table. Then, the wealth of this region will be in 1878, *nine hundred millions of dollars*; or an absolute increase of *six hundred millions*, mainly caused by the construction of these roads; and this increase is to keep on, just as great for twenty years more; and thus, we see, that these Pacific Roads, North and South, will *pay back to the Government in the increased basis of taxation, a vast deal more than the interest on all their capital*. This is what we wanted to show; and in view of this fact, we ask again, *who* is it *needs* these Roads most? Unquestionably, the Government. *How* the Government can give the aid, without cost or danger to itself, we have shown in other articles.

The Lake Superior Miner says the construction of the Mississippi and Lake Superior Railroad, extending from St. Paul, Minn., to Lake Superior, is a fixed fact.

PACIFIC RAILROADS.

Government Aid not a Question of Policy.

A Question of Finance.

That the present debt of the United States is a large obligation, onerous in its burden on the laboring and tax paying portion of the community, we shall not question, but freely admit, without argument; but that it is of such terrible proportions as to become a bar to enterprise and progress, even if progress has to be made by an increase of the debt, provided, a due and valuable consideration is acquired therefor, we shall deny. It is a well known fact in mechanics that, under certain circumstances, by increasing the load it is more easily moved. In illustration of this, we need only cite the case of the farmer with the load of hay that the old gray mare could not pull up the hill, but when he put his boy on her back she moved it forward with comparative ease. Now, this is exactly the condition of the industrial interests of the country at the present moment. The load of debt has become irksome, merely because the energies of the industrial classes have been in a great measure paralysed by the contraction of the currency, in a ratio greater than the extinguishment of the debt. This is where the great mistake has been made, the load on the vehicle—the bonded debt—has been increased, while the tractive power—the nerve of labor and the blood of commerce—currency—has been diminished. No wonder, then, that the people groan under its oppression, and demand relief. This is not a partisan view; it is sustained by the press and politicians of both parties. As we cannot lighten the load till we get to the top of the hill, we must put the boy—issue greenbacks—on the back of the gray mare, and then prosperity will return, and the incubus of debt be moved forward to its final redemption. To sustain the positions assumed, we quote, first, from the platform of the—

"Union Republican party of Indiana, assembled in Convention, at Indianapolis, on the 20th day of February, 1868, to consult in reference to the present condition of the country, make the following declaration of principles:

"The public debt, made necessary by the rebellion, should be honestly paid, and all the bonds issued therefor should be paid in legal tenders, commonly called greenbacks, except where, by their express terms, they provide otherwise, and paid in such quantities as will make the circulation commensurate with the commercial interests of the country, and so as to avoid too great inflation of the currency, and an increase in the price of gold.

"The large and rapid contraction of the currency, sanctioned by the votes of the Democratic party in both Houses of Congress, has had a most injurious effect upon the industry and business of the country, and it is the duty of Congress to provide by law

for supplying the deficiency in legal tender notes, commonly called greenbacks, to the full extent required by the business wants of the country."

This is but a single expression; we might, however, go on and add more, but deem it unnecessary. We will, however, add the following as showing the views of the "Ishmael" of the press, as well as the endorsement of it, by the home organ of Mr. PENDLETON, the Cincinnati *Enquirer*, from which we copy the following:

The New-York *Herald*, in an article upon this subject, indulges in the following sensible remarks. It says:

"The interests and necessities of communities govern them in their financial policy so far as they understand the difficult subject of National finance. Hence we see a large majority of the Western people of all parties in favor of a liberal and expanded currency, and the Eastern people, for the most part, in favor of contraction and forcing specie payments. The people of the West are poor, comparatively—that is, they have little realized or accumulated capital, and they require an abundant currency and easy money market to develop the resources of their section of the country, and to aid them in numerous enterprises. Besides, being largely indebted to the capitalists of the East, a contraction of the currency would increase the weight of their debts, and throw a great many of them into bankruptcy. It is easy to see, therefore, why they are opposed to contraction, and why they demand an ample currency. In the East, on the other hand, the people have a great deal of realized or accumulated capital, and are large holders of Government bonds. A contraction of the currency and forcing specie payments would increase their wealth, would add to the value of their bonds, and, Shylock-like, would enable them to put the screws to their debtors. It would increase the wealth of the rich and the poverty of the poor. Herein lies the real motive for the difference of views and policy in the two sections of the republic."

The *Herald* is an Eastern journal, but has stated the question at issue quite fairly and impartially. Both the West and South do want, and will strongly urge, an increase of currency. The West needs it to develop its resources, which are constantly calling for an increase of money. The South needs it to repair the ravages of war, and to make permanent improvements that have been destroyed. The construction of the Pacific Railroad, the repairs of the Mississippi levees, the refurnishing of plantations that have been rifled of what is necessary to carry them on, the rebuilding of houses and barns, the opening of new fields of enterprise, all require, for the present, a large amount of currency. The East, if it would consider its interests aside from those of the money lenders, and bondholders, and stock jobbers, would also be benefited in an increased trade and remunerative commerce with the other sections of the country.

From the above quotations it is plain that we are not advocating a mere party scheme, we therefore claim the support and sympathy of all patriots and lovers of their country. The bonded debt should be reduced as fast as the means, at the command of the Nation, will admit—at any rate it should not be increased. At the same time there is a demand—"a cry-

ing of children for bread"—for an increase of the non interest-bearing debt of the country—the currency—the greenback—that can not be disregarded. How, and what for, are they to be issued, is one of the most serious and important questions. If, in the redemption of the bonded debt, the amount will be too great; the inflation of the currency to such an extent, will work its own destruction. We do not, and God grant that we never may, need to issue currency for war purposes,—the clothing and feeding of troops, the construction of forts or the purchase of the munitions of war. If the amount necessary to create a reactionary movement in the industries of the country should be expended in the purchase of bonds, it would produce disturbance in the markets and bring its mischiefs with it.

Where then is a legitimate field for its expenditure? Let us see. The *Republican State Convention of Missouri*, on February 22d, passed among others, the following resolutions:

"Resolved, That as taxation must remain in proportion to our wealth, and our wealth in direct proportion to the value of our productions, we will support only those measures of political economy which tend to increase the agricultural, mechanical and mineral production of our country.

"Resolved, That the development of the untold wealth of our resources demands the improvement of our rivers and the completion of the railroads leading to the Pacific Ocean."

They propose to promote "Agriculture, Mechanical and Mineral productions," and to "develop the untold wealth of our resources," by the "improvement of our rivers, and the completion of the railroads leading to the Pacific Ocean." If this shall be done by the issue of greenbacks, gradually, as the work progresses, it would, especially, if sacredly consecrated, as we have, in a previous article, suggested, as a

SINKING FUND,

Be putting the "boy on the back of the old gray mare," or adopting the well known principle of railroad engineers of using heavy locomotives for heavy loads or up-hill grades, and would result in not only "promoting agriculture, mechanical and mineral production," and "develop the untold wealth of our resources," but it would, also, by its accumulative power—"set ducats to breed ducats")—PAY THE NATIONAL DEBT, not in other promises to pay, but in the coveted, shining products of the Sierras.

This contemplates, it is true, a bold, broad and expansive policy; yet by adopting it we gain the benefit of the increased circulating medium, the necessary life blood of commerce, and the nerve of industry, will incalculably increase the value of the Public Domain, more than double the products of the precious metals, unmeasurably increase our product of the "staff of life," and attain the positive control of the commerce of the

Orient and the Pacific Ocean, without disturbing values, creating panics, or over-stimulating the trafficking propensity of the nation, as would be the case in the purchase, in open market, of government bonds.

One other point and we are done. We observe that

"Mr. Wilson, of Iowa, offered a resolution declaring that the public welfare demands that the pecuniary obligations of the United States should be kept within the narrowest limit consistent with the necessary requirements of the Government; that therefore it was not expedient at this time to enlarge such obligations by extending such aid to the Union Pacific Railroad or any other company, by granting beyond the terms of existing laws of subsidies of United States bonds, or by guaranteeing payment of any stock or other liability of such company or any corporation; and directing the Pacific Railroad Committee of the House to report no bill during the session to conflict with the resolution."

We give this as another indication that Congress is determined, judiciously, not to increase the bonded debt, ("the load of hay"). This, however, does not conflict with the plan we have suggested of granting the necessary and appropriate aid in greenbacks, and receiving interest from the companies, to be with other funds, as suggested by Mr. WILSON, of Ohio, constituted into a *Sinking Fund*, which he so clearly demonstrated would *extinguish the National Debt*. We have too high an opinion of the good sense of the gentleman from Iowa, as well as Mr. WASHBURN, of Illinois, (both of whom have taken ground against aid, in *Bonds*, to the Pacific Railroads) to suppose for a moment, it is on account of hostility to the construction of Railroads to the Pacific; or, that they consider their section has got all the government aid for improvements that they need; and hence they have no sympathy or care for the development and interests of other less favored portions of the country. Indeed, they are too well aware of the immense benefits that their own States have received from the aid furnished by the Government for the construction of Railroads, and have too keen a sense of the justice of the maxim of "do to others as ye would that they should do to you," as well as too broad a conception of the destiny of our country, to be instigated by other than patriotic motives. The country, in her present need, must bring in requisition, in the construction of the glorious temple of her future destiny, all the "wisdom, strength and beauty" that her noble sons can furnish; and these gentlemen will not be among the stumbling blocks or laggards.

ST. MARY'S FALLS (LAKE SUPERIOR) SHIP CANAL—The net receipts from the canal tolls, during the fiscal year ending Nov. 30, 1867, amounted to \$18,905.61, an increase over the net receipts of the previous year of \$4,721.01. The total gross receipts for the year amounted to \$31,054.70, an increase over those of the previous year of about \$8,000.

CINCINNATI. WHAT THE CITY SHOULD DO. EXPEND \$10,000,000. ON WHAT AND WHAT FOR? WILL IT PAY?

It is only by rendering the city of Cincinnati attractive as a place of business, with every available avenue and facility for the cheap exchange and transportation of commodities, a suitable locality for advantageously prosecuting manufactures by promoting the development of the cheapest means for securing the raw material, and all the elements that go toward making up the cost of manufactured articles, including the cost of living for operatives, as well as to secure the elements of comfort and health, that will entitle her to retain her proud cognomen of the "Queen City" of the West. It is for the purpose of indicating what are the wants of the city at the present time, and presenting matters for the candid thoughts of citizens that we urge upon them the absolute necessity for the prosecution of the following enterprises, all of which demand the most serious consideration and energetic action to prevent the city falling into the rut of lethargy, and dragging out a miserable third-rate existence.

"What will a man give for his skin" is not a new question; and it is fair to concede that without due regard to sanitary regulations and a sufficient supply of those two natural elements that go so far towards making up the sum total of health and consequent prosperity and longevity,—pure water and pure air,—that the city would not be a desirable place of residence. Hence we insist that among the first thoughts that should occupy the attention of our city government is the necessity for an adequate supply of

PURE WATER.

This subject we have canvassed so fully in recent issues of our paper, that it is not now necessary to give it any lengthy notice. We will, however, remark that so far as we have observed, the project of getting the supply of water for the city from the Ohio River, above the mouth of the Little Miami, from the Kentucky shore, and bringing it across the peninsula of Campbell county, meets with universal favor; the only objection ever urged has been the fear of unfriendly legislation by either State or local authorities. This is an objection; but one that can be readily overcome, as we have previously suggested by properly interesting Newport and Covington in the enterprise. But the water we must have, cost what it may; hence, we say that the city can afford to spend \$2,000,000, at least, to secure an abundant supply of pure water, and that it will be no eventual tax on the city, as the income from the consumers will pay not only the interest, but also the principal.

The next subject of importance is, a good, cheap, safe, efficient, and satisfactory
THROUGH CONNECTION

For all the Railroads now centering here, or that may hereafter be constructed to or from the city. This can be best secured by the project which we set forth fully in our issue of September 30, 1867, of a Tunnel under the high plateau of the city. This would meet the wants of all the roads, and is well known to be perfectly feasible. For this work an expenditure of \$1,500,000 would be ample, including depot grounds for both passenger and freight traffic. This could be taxed on the roads and *cost the city nothing*; but as we have on a previous occasion suggested, the city could afford, and it would be but just, to construct the Tunnel and pay for the ground for the general depots, both passenger and freight, while the roads could afford to jointly put up the necessary buildings, useful to themselves and ornamental to the city. This would cost the city not over \$750,000, and would add greatly to the facilities and business capacity of the town.

It is universally conceded that the long contemplated, much talked of, frequently resolved

DIRECT SOUTHERN RAILROAD,

Connecting us with the Southern system of railroads, and giving us the advantages of trading with the vast interior country, full of mineral wealth, and hitherto inaccessible, as well as other outlets to the sea, is a *necessity of the first importance*. Who can doubt, when finished, that this road will pay the interest on the necessary cost of construction and ultimately repay the principal? Why, the smallest boy in the street can argue the question, and the old gray headed citizen will tell you that this was fully understood when he was a boy! It has never been built; yet no body can tell why. Louisville, with her feeble, but sagacious and energetic GUTHRIE, is stretching every nerve to carve out and make tributary to her interests the territory that will be reached by this route. Complaint is made that Kentucky, as a State, should do more. It cannot be expected that the Legislature of Kentucky, with their well known State pride, will do anything that would discriminate *against* the first city of the commonwealth, and throw the power and strength of her State Treasury in favor of a rival city. It is certainly fair that the Legislature has granted equal facilities and equal aid—nothing. If the road will pay, as an investment, when built, then the city Treasury would lose nothing by its construction, if it should advance \$2,000,000 for the work, and the city would gain at least 20 per cent. on the amount of her gross traffic, besides being brought into immediate contact with the best of lumber, iron and coal, in inexhaustible quantities, to feed her factories and foundries with the raw material.

The next great enterprise that claims the attention of the citizens of Cincinnati is the—

CHESAPEAKE AND OHIO RAILROAD.

This road, like the outlet to the South, is through a new and untrodden field of enterprise, and will bring, not only an extensive, but a new trade to Cincinnati, and make us at least fifty miles nearer tide water than we now are. It will also be another avenue through which the city will obtain, from unopened and inexhaustible sources, supplies of the raw material for manufactures. This route possesses other features of importance, in addition to being the shortest between Cincinnati and the seaboard; it will be through a milder climate, and not only the average, but specific gradients, will be not more than one-half those of at least three of the other Great East and West trunk lines. These local, climatic and gradient advantages are equal to fully forty per cent. of the cost of transportation, and would give Cincinnati an immense advantage in the shipment of the good products of the Ohio valley. Hence the amount that Cincinnati ought to advance to aid in the completion of this route, \$2,000,000, would be a good, paying investment; it would be no burthen on the tax payers, but would meet both its interest and principal, and would so increase the business of the city as to make the tax payers rich.

To tie these great and important works together, we need a first-class, general

RAILROAD BRIDGE,

To connect these roads from the East, the West, the South and the North, which, together with the THROUGH CONNECTION, as above suggested, would complete the railroad system of Cincinnati, and afford facilities unsurpassed by any city of the Union. To this the city treasury should contribute \$500,000, which also would again be paid back by the tolls on traffic.

PARKS AND AVENUES.

Last, though perhaps not least, of the important enterprises that demand immediate consideration of the citizens of Cincinnati, is the construction of suitable avenues for increased general traffic and locomotion; of parks, for the breathing places, amusement, recreation and sanitary improvement of the laboring classes; and, the permanent improvement of the Mill Creek Bottom. The last would fully pay for any expenditure that can be judiciously made, by the increased value of property in the immediate neighborhood, while the construction of avenues should also in full, and of parks in part, be assessed on the immediately contiguous and benefited property, which could well afford to bear the tax. This is the way such improvements are made in Eastern cities; hence, why not in Cincinnati.

It will thus be seen that we have laid out an enlarged programme for the advancement of the interest of Cincinnati, to be obtained only, however, by a bold and liberal policy; and, although the expenditure is great, yet nearly all of it is for enterprises that will produce sufficient returns to take care of themselves and relieve the treasury of future care.

Cincinnati & Charleston Railroad.

WHAT TENNESSEE IS DOING.

Is Cincinnati Ready to Construct Her Portion?

The following letters will fully explain themselves; and hence, requires but few comments from us. It will be seen from this article and the communication of J. W. HARRISON, in our issue of last week, that the entire route through to Charleston is fully aroused to the magnitude of the interest at stake, and will do their share of the work. It now only remains to be seen, whether the city of Cincinnati can "see through a mill-stone," and act with reference to her interest in the same manner that any other intelligent community would act.

"Now is the day, and now the accepted time," for Cincinnati to show self-reliance and appreciation of her own interests by work instead of talk. We have, perhaps, hitherto entertained too much faith in the good sense of the people of Cincinnati, but we have always believed that all that was necessary was to present a really feasible plan to aid in the construction of the direct railroad to the South, under the control and management of Cincinnati, and to be worked for the interests of the city, that the citizens were ready to construct it. If such a plan is not soon found and adopted, it will be too late, as the "cream" of trade is obtained at the "first skimming." It will be found much more difficult to change the current of trade, after it has been once set in another direction, than it would be to canvass the virgin fields. Is Cincinnati ready for the question?

OFFICE OF KNOXVILLE & KENTUCKY R. R. Co.,
KNOXVILLE, TENN., Feb. 19, 1868.

T. WRIGHTSON, Esq., Cincinnati, O.:

DEAR SIR—I enclose herewith copy of a letter which I have this day written to SAMUEL H. GOODIN, Esq.

Very truly, yours,

JNO. S. MOSES,

Sec. and Treas. K. & K. R. R. Co.

SAMUEL H. GOODIN, Esq., Cincinnati, O.:

DEAR SIR—Col. J. A. MABRY, the President of our Company, to whom you addressed a letter on the 25th ult., has been away from home on official duty for several weeks, with the exception of a single day, and is now absent. Your letter has consequently been handed to me for a reply.

A communication of the 13th ult., from T. WRIGHTSON, Esq., Editor of the RAILROAD RECORD, of your city, to his Excellency, Gov. BROWNLOW, has been referred to me from the Executive Department of the State, with a re-

quest to furnish certain items of information upon the same subject.

I take pleasure in acceding to your wishes and his, by presenting the following statement:

Thirty-one miles of the Knoxville & Kentucky Railroad are now completed, and trains are daily passing over it to that extent, to wit: from Knoxville to Coal Creek Station, on the main track, as well as over about a mile of branch tracks from Coal Creek Station to the coal mines.

The road-bed for from miles beyond Coal Creek is nearly graded, and the rails will be laid thereon within the ensuing two months. The work of graduation on the next eleven miles is in the course of vigorous prosecution to a point of forty-six miles from Knoxville. Between that point and the Kentucky State line, nineteen miles intervene, the work on which has not yet been put under contract, but which will all be let during the coming spring, and rapidly pressed to completion, if we can be assured that either Louisville or Cincinnati will meet us at the border.

One route to a point forty-eight miles from Knoxville is identical with that of the Burnside survey. At that point the Burnside line takes a Westward divergence and taps the State boundary at or near Chitwood's, while our course continues nearly North-east, to a point half a mile South of that at which Elk Creek, (a branch of the Clear Fork of the Cumberland River,) crosses the State line, and about two miles West of Boston, Ky.

Our principal resources for the continuance of our work are: \$800,000 in Bonds of the State of Tennessee, loaned to our Company under an act passed December 7, 1867; \$330,000 in similar bonds, for the loan of which provision was made by a previous Act; \$50,000 in bonds of the county of Campbell, in this State, and unpaid claims for stock subscription amounting to about 35,000—making an aggregate of \$1,215,000.

Our road can be finished to the Kentucky State line in eighteen months, and the work will be done within that time, if we shall have a guaranty that we can then form a through railway connection with Louisville or Cincinnati.

In the hope that the people of the Ohio Valley are as thoroughly in earnest about this matter as we are, I am,

Very truly yours,

JNO. L. MOSES,

Sec. and Treas. K. & K. R. R. Co.

A company has been formed at Ellsworth, Kansas to build a railroad thence to Fort Larned. The road will open up a fertile, rich and beautiful valley, along which a road can be constructed at a comparatively trifling expense. The distance from Ellsworth to the valley is about thirty-seven miles, and there are no engineering difficulties in this part of the route. After the valley is reached the route is a direct one on a nicely level route to Fort Larned.

Erie Railway—Broad and Narrow Gauge.

A protest was this morning served by one of the Directors of the Erie Railway Company upon Messrs. Lockwood and Keep of the Michigan Southern, to prevent them from making an agreement with the Erie to lay a third rail upon their road, by which broad and narrow-gauge cars alike can be run from the Long Dock to Chicago, and narrow-gauge cars from San Francisco and the whole Western continent to the Long Dock. An arrangement of this sort would give the Erie Company new life, and enable it to compete much more successfully for business with the narrow-gauge roads north and south of it, which have grown rich while broad-gauge roads have gone to protest. Objections to a third rail would come with good reason from the New-York Central, the Lake Shore, and Cleveland and Toledo roads, or from the Pennsylvania Central and Western connections, but they are open to the gravest suspicions when they proceed from a Director of the Erie Company, which has always suffered in the traffic from its differential gauge. The following is a copy of the protest:

To the Board of Directors of the Michigan Southern and Northern Indiana Railroad Company, and to the Executive Committee of the Board of Directors of the Erie Railway Company.

GENTLEMEN: I am informed that a proposition has been made by some of the Directors of the Erie Railway Company to the Michigan Southern and Northern Indiana Railroad Company, to the effect that if the last named Company will agree to lay a third rail from Toledo to Chicago the Erie Railway Company will agree to construct, or provide for the construction of, a wide-gauge railroad from Akron to Toledo. As a director of the Erie Railway Company, and representing a large amount of the stock thereof, I hereby respectfully notify you that I protest against the making of such agreement, or of any similar agreement; and that legal proceedings are about being instituted on behalf of stockholders of said Company to restrain the making of any such agreement, and that, in case any such agreement is made, legal proceedings will be instituted to have the same adjudged fraudulent and void, on the ground, among others, that the Directors of the Erie Railway Company who favor such proposed agreement are individually pecuniarily interested in the same being made, and that the said agreement will enure to their personal benefit and advantage, to the great prejudice of the interests of the Erie Railway Company.

FRANK WORK.

To Lee Grand Lockwood, Esq.
New-York City, Feb. 17, 1868.

The Michigan Southern directors have been in session to consider several topics of importance to their property. No dividend has been declared, but it is understood that the stockholders will have something to show for the earnings of the road and in construction, and amounting to \$2,500,000. A plan to lay a third rail upon its direct line has been under discussion, and is much favored by its most experienced managers. Such a rail, which would bring this road on the east in accord with the Atlantic and Great Western, and Erie Railways, and westward place the new combination in closer communication with the Chicago and North-Western, would make a consolidation which would defy competition.

'The Erie injunction' issued by Judge Barnard is interpreted upon the street as a speculative movement, and attracts little attention. The treasurer of the company stands upon his contract, which, before execution, was submitted to, and approved of by, as eminent counsel as have thus far called it into question. The subject is of great interest, and the public expects to see it fully examined. That Mr. Drew has loaned the Erie Road large sums of money, keeping it from protest when his associates refused any assistance, is a fact known to all. That he, in common with other railway officials, operates heavily in stocks, is also undoubted. The point at issue is, whether in his negotiations with the company he has violated his obligations as a trustee.—*Tribune*

Boston and Albany Railway.

The Western Railroad Company and the Boston and Worcester were merged in the Boston and Albany, December 1st, 1867. The Western Railroad was chartered in 1833. The corporation was organized in January, 1836. The first train of cars ran through to Albany on the 4th of October, 1841. At a meeting of the stockholders of the road in 1841, Mr. Degrand presented the following "estimate" of annual income from its business:

From 300,000 through passengers,	
at \$3 00 each.....	\$900,000
From 167,000 through tons of freight, at \$4 00 per tun.....	668,000
Way travel and freight.....	784,000
Gross income.....	\$2,352,000
Expenses, including tolls to Boston and Worcester Railroad.....	852,000
Net revenue.....	\$1,500,000

The condition of the road in 1842, the first year of through traffic, and in 1867, the last year of the existence of the Company:

	1842.	1867.
Cost.....	\$7,398,936	\$12,602,361
Gross income.....	512,688	4,086,707
Working expenses....	266,619	2,837,411
Net earnings.....	246,069	1,249,296
Sinking fund.....	177,529	3,611,164
Passengers carried...	190,436	1,028,121
Tons of freight.....	39,820	934,605
No. of miles run.....	397,295	1,840,291

The shares in the Western Railroad sold as low as \$40 00 in 1842, and as high as \$171 00 in 1863. Present price of shares in the Boston and Albany Railroad, \$146 00. In 1846 a proposition to unite the Western with the Boston and Worcester Railroad—rating the stock of the Western at \$100 00, and the Worcester at \$120 00—was declined by the Worcester.

BOSTON, HARTFORD AND ERIE RAILWAY.—

From the annual report to the Massachusetts Legislature of the Boston, Hartford and Erie Railroad corporation, the following facts are gathered:

The capital stock of the Company is \$20,000,000; number of shares, 143,840; increase of shares in 1867, 30,070; capital paid in, \$14,884,000; increase of capital paid in 1867, \$3,007,000; total present amount of funded and floating debt, \$10,326,406; increase in 1867 of funded and floating debt, \$2,077,076; average rate of interest paid in 1867, 8 per cent.; total cost of road and

equipment, \$19,242,081; increase in 1867 of cost of road and equipment, \$6,338,268; whole length of road in Massachusetts, Rhode Island, Connecticut, and New York, about 400 miles, of which about 245 are ironed and in operation. The total income of the road in 1867 was \$369,577; in 1866, \$84,579.

The Company owns eighteen engines, twelve passenger cars, and sixty merchandise cars. There are ten mortgages on the road and franchise, amounting to \$8,693,350, an increase of \$492,000 since 1866. In December, 1866, the Company rented the Norfolk County Railroad for three years, at \$12,000 per annum, and the easterly ends of the line now extend to Boston, Brookline and Dedham. The road also extends from Providence, Rhode Island, reaching the main line at Wilimati, in Connecticut. The Western terminus of the road is at Fishkill, on the Hudson river. The directors are John S. Eldridge, (President), Mark Healey, Henry H. Farwell, Joseph W. Clark, and Jas. S. Whitney.

OFFICE OF GRAND WORTHY PATRIARCH,
S. OF T., OHIO,
YOUNGSTOWN, MAHONING CO., Feb. 15, 1868.

In view of the importance of the work of temperance, in our State and in the country, and especially among the young men, and acknowledging the necessity for divine aid in the prosecution of our work; the Sons of Temperance, of Ohio, through their grand division, issue their circular to the clergy of the State, respectfully asking that Sunday, March 15, next, be set apart as a day of fasting and prayer to God, that the cause of intemperance may be done away in our land. The clergy of the State of Ohio are urged to preach at that time, earnest, pointed sermons upon the duty of Christians in view of this great evil.

Statistics gathered in the city of Cleveland, under the auspices of the Bible Society, in 1866, show the number of daily visitors at the different saloons in that city to have been 2,217, of whom 780 were under twenty years of age. The amount expended in those places during that year was \$1,622,284, or \$31,967 a week! Even this vast sum divided among the saloons would give them an average of only \$12.50 a day. The entire expense of all the churches in that city, both Protestant and Catholic, with all their benevolent operations and contributions, including the Orphan Asylum, during that year, was \$370,000. The whole cost of the city government that year, including the schools, police and fire departments, and interest on public debt, was \$510,697. This makes a total of \$880,697, which is \$781,587 less than the amount expended for whisky at the bar.

It is ascertained that upwards of 3,000 saloons in Cincinnati are open each Sabbath, and that they are frequented most by the young men.

In view of the dangers to young men who are without home influences, in our cities—in aid of our Young Men's Christian Association, which are laboring nobly for the young—in encouragement of our various temperance organizations—and in knowledge of the fact that only the grace of God will keep a man from drink when once he has learned to desire it—we urge this united effort on the part of the clergy and of Christian people on the day specified.

HAL B. CASE, G. W. P.
EDW. ANDERSON, Chf. Dep.

Railway Interests of Great Britain.

The London Times says: "Subjoined is a further statement furnished by Mr. Grinstead in relation to the railway capital in the United Kingdom, in 1866. It appears that on the total paid up capital of £181,872,184 the net return was fractionally over 4 per cent; but this return, which in itself would be moderately satisfactory, is of course ruinous to the ordinary shareholder overweighed by 5 and 6 per cent. preferences. There is also reason to assume that even the amount of 4 per cent. has been in no slight degree made up by improper charges to capital. On the other hand, allowance must be made for the fact that a portion of the capital paid up represented new or unfinished lines not brought into full development:

CAPITAL OF RAILWAYS IN THE UNITED KINGDOM FOR THE YEAR 1866.

Total amount of capital authorized to be raised to the end of the year 1866:

On shares.....	£466,151,633
On loans.....	154,412,773
	£620,564,406

Increase of capital authorized in the year 1866.....

Ordinary shares.....	£228,245,629
Preferential shares and stock....	134,455,098
Debenture stock.....	14,105,594
Debentures.....	105,065,863

Total amount of capital paid up to December 31, 1866.....

Increase of capital paid up in the year 1866.....

ENGLAND AND WALES.	
Capital authorized to be raised on shares.....	£388,005,689
Capital authorized to be raised on loans.....	129,762,809
	£518,368,493

Increase during the year 1866. £41,158,142

Capital paid up on ordinary shares.....	£193,674,973
Capital paid up on preferential capital.....	109,322,844
Capital paid up on debenture stock.....	12,566,697
Capital paid up on debentures...	86,659,720

£402,224,234

Increase in paid up capital..... £22,610,447

SCOTLAND.	
Capital authorized to be raised on shares.....	£50,104,794
Capital authorized to be raised on loans.....	17,024,633
	£67,129,417

Capital paid up on ordinary shares.....	£19,797,076
Capital paid up on preference....	19,460,908
Capital paid up on debenture stock.....	1,254,732
Capital paid up on debentures..	12,566,082
	£53,078,798

Increase in paid up capital..... £2,872,766

IRELAND.

Capital authorized to be raised on shares.....	27,441,150
Capital authorized to be raised on loans.....	7,625,341
	£35,066,491

Capital paid up on ordinary shares.....	£14,773,580
Capital paid up on preference....	5,671,306
Capital paid up on debenture stocks.....	284,165
Capital paid up on debentures..	5,840,061
	£26,569,112

Increase in paid up capital..... £901,628

ENGLAND AND WALES.

Total paid up capital.....	£402,224,274
Gross traffic receipts.....	32,274,869
Per centage on capital.....	8.02
Working expenses.....	15,894,526
Net receipts.....	16,380,343
Per centage on capital.....	4.00

SCOTLAND.

Total paid up capital.....	£53,078,798
Gross traffic receipts.....	4,127,131
Per centage on capital.....	7.78
Working expenses.....	2,013,087
Net receipts.....	2,114,044
Per centage on capital.....	3.97

IRELAND.

Total paid up capital.....	£26,569,112
Gross traffic receipts.....	1,762,354
Per centage on capital.....	6.63
Working expenses.....	904,060
Net receipts.....	858,394
Per centage on capital.....	2.85

UNITED KINGDOM.

Total paid up capital.....	£481,872,184
Gross traffic receipts.....	38,164,854
Per centage on capital.....	7.92
Working expenses.....	18,811,673
Net receipts.....	19,352,681
Per centage on capital.....	4.04

Imports and Exports.

FOREIGN IMPORTS AT NEW-YORK FOR SEVEN

MONTHS ENDING JANUARY 31.		1866.	1867.	1868.
Entered for con'n.....	\$108,898,483	\$76,077,727	\$70,424,231	
Ent'd for warehousing.....	56,171,003	62,894,131	53,333,510	
Free Goods.....	6,025,882	6,082,782	5,846,781	
Specie and Bullion.....	1,144,299	8,524,562	1,896,217	

Total ent. at the port.....	\$172,840,117	\$104,180,197	\$131,400,453	
Ent'd for warehouse.....	46,321,906	59,627,912	54,019,789	

EXPORTS FROM NEW-YORK TO FOREIGN PORTS FOR SEVEN MONTHS ENDING JANUARY 31.

1866.		1867.	1868.
Domestic produce....	\$125,883,684	\$95,313,522	\$108,820,047
Foreign mde., free....	342,140	261,695	162,097
Foreign do., dutiable.....	1,589,297	2,363,666	4,600,508
Specie and bullion....	14,794,260	19,322,621	34,556,111

Total Exports.....	\$142,602,381	\$117,361,905	\$144,147,823
Do. exclu. of specie.....	127,808,121	98,039,254	105,591,710

The aggregate amount of exports (exclusive of specie) from the port of New-York to foreign ports, for the week ending Feb. 18, 1868, was \$3,686,417.—Tribune.

The receipts of the Western Union Railroad Company for the week ending February 21:

	1868.	1867.	Inc.	Dec.
Freight.....	\$6,110.52	\$2,037.77	\$4,072.75	.....
Passengers.....	2,788.67	2,227.55	561.12	.....
Express and Tel.....	600.00	320.00	280.00	.....
Mail.....	375.00	375.00	.....	.....
Totals.....	\$9,874.19	\$4,960.32	\$4,913.87	.....

Receipts from January 1, to February 21:

1868.....	\$75,706.05
1867.....	58,384.07
Increase.....	\$17,321.98

MONETARY AND COMMERCIAL.

The past week has been one of very great political excitement, which has more or less interfered with general business. The money market, however, has not experienced any remarkable shock, such as would naturally result upon the occurrence of events of so grave a character in any other country. Although it is not our province to discuss the causes that have led to the unfortunate difficulty that has at last culminated in the impeachment of the President of the United States, yet it is a source of deep humiliation and regret to contemplate that such an extreme measure should ever be deemed necessary. We trust that, as the court of last resort has been at length appealed to, that as few unnecessary delays may occur in the final settlement of the question as due regard for personal and constitutional rights and the cause of justice will admit of. It has already been of sufficient injury to the material interests of the country, and we doubt not has cost the National Treasury more hundred of millions of dollars than one, or two either. Be the result as it may, let justice be done, and public opinion will confirm the verdict.

The demand for money has been moderate, there being no speculative movements to create unusual activity. Bankers meet all the wants of regular customers at 8@10 per cent, while outside paper is not usually done at less than 12.

Exchange has been in good supply, and the demand about equal. Rates are firm, but quotations are without change. The following are the usual quotations:

	Buying.	Selling.
New York.....	1-12 dis.	per
Philadelphia.....	1-10 dis.	per
Boston.....	1-10 dis.	per
Gold.....	140 3/4	141 1/2
Silver.....	128@131	129@132

The following shows the fluctuations of the New-York gold room under the excitement:

	Opening.	Highest.	Lowest.	Closing.
Feb. 18.....	141 1/2	14 3/4	14 3/4	1-0 3/4
" 19.....	140 1/2	140 1/2	140 1/2	14 3/4
" 20.....	140 1/2	140 1/2	140 1/2	140 1/2
" 21.....	140 1/2	142	140 1/2	14 3/4
" 22.....	142 1/2	142 1/2	142 1/2	143 1/2
" 24.....	14 3/4	14 3/4	14 3/4	142 1/2
" 25.....	142 1/2	142 1/2	142 1/2	14 3/4
" 26.....	140 3/4	140 3/4	140 3/4	140 3/4

Of the New-York markets the Tribune of Wednesday says:

"Money has been more active, and new business on call has been done at 5@6, with a good demand. There has been a good deal of shifting of call loans, and commercial paper could only be used at higher rates, at bank and upon the street.

"State bonds were irregular. Missouri six per cent. sold at 105; Tennessee six per cent. new, were lower, selling at 61 1/2; North Carolina six per cent., 54 1/2. Railway bonds were steady. Western Union Telegraph continues depressed. Express shares are dull and lower, with small transactions. Adams, 72 1/2; Wells-Fargo, 40 1/2; Merchants' Union, 35. At the Second Board, in sympathy with that market, they were stronger, with small offerings. Pacific Mail was strong, opening at 110 1/2, selling at 114 1/2. The stock is very

sensitive, and rallies sharply on any attempt to purchase. The short interest is said to be large. The railway share market opened weak on New York Central, which declined to 125½, but on small purchases rallied to 127. Erie was weak at the opening, selling at 66½. The balance of the list was steady, with few stocks offering. After the board there was a general improvement in the market, Erie taking the lead, selling at 68. Reading, Michigan Southern, North-Western Preferred, and Cleveland and Toledo were in request and sparingly offered. At the 1 o'clock board prices were stronger, and the market closed very firm. At the Second Board there was an improvement in all the leading shares. After the call, New-York Central sold at 128½; Erie, 69½; Michigan Southern, 91½; and Reading, 93. The market closed firm, with an active demand for stocks at quotations.

PROPOSALS.

To Bridge Contractors.

ENGINEER'S OFFICE LOUISVILLE BRIDGE CO.,
Louisville, Ky., February 17, 1888.

PROPOSALS WILL BE RECEIVED BY the undersigned until March 10th, 1888, for the construction of a portion of the superstructure of the Ohio River Bridge at Louisville, consisting of (10) ten spans of Fink's Iron Suspension Truss of the following lengths, from centre to centre of piers: four spans of 149.6 feet, two spans of 160 feet, two spans of 20 feet, and two spans of 227 feet.

Plans and specifications can be seen at this office.

F. W. VAUGHAN, Ass't Engineer.
ALBERT FINK, Chief Engineer.
2-20,3

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

JNO. L. WILSON, Master of Transportation.
L. M. COLE, General Ticket Agent.
JNO. W. BROWN, General Passenger Agent. } Dec. '87.

SUSPENSION COUPON TICKET CASE.

BACON'S PATENT.

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO. OF	PRICES.	SIZE NO. OF	PRICES.
NO. FORMS.		NO. FORMS.	
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of a Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,
Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O.

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

CINCINNATI, O

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SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

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COUPON AND LOCAL TICKETS,

Bills Lading,

Way Bills,

Blank Books,

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MERCHANTS,

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MANUFACTURERS,

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PUBLIC OFFICES, Etc., Etc.

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Late Master Car Builder C. & I. J. R. R. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

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J. M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati.
J. H. WELLS, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati.
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton.
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indiana: at Aug. 2, 1866.]

THE

STEAM SYPHON PUMP

IS THE

Most Simple, Effective and Durable Device for Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

A locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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NEW YORK.

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Oil Lands

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Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday.

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at the northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 7:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 light

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 2:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:22 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:39 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

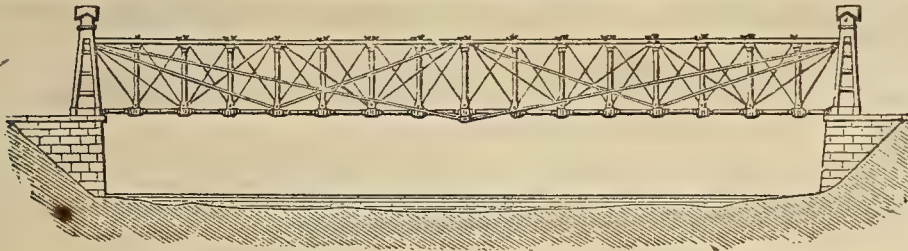
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. E. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enable us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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GEORGE T. JONES
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THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburgh, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

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LOCOMOTIVE ENGINE



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ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

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Shops—Seventeenth and Coates St. PHIL.

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Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR
Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double flat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for

Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route; the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore of the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and a rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the ONLY ROUTE by which passengers can procure through tickets and through checks to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City.....	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Bureau House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

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Omnibuses call for passengers.

JANUARY 5th, 1868.

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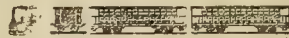
TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 01 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

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J. W. CONLOGUE,
General Superintendent.

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SECOND TRAIN—1:20 A. M.—Indianapolis Lafayette, Springfield Quincy, Palmyra and St. Joseph Express arrives at Indianapolis, Lafayette, Springfield, Quincy, Palmyra, St. Joseph, Atchison, K. T. at 1:30 A. M. Terre Haute and Alton train leaves Indianapolis at 7:30 P. M.

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H. C. LORD, President
W. H. L. NOBLE,
General Ticket Agent.
C. R. COTTON, Cincinnati Agent

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TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M. Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express).

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at Annapolis for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

vated, if it were not for the means of sending products to market, which railroads furnish; and so, if it were not for these increased products, the railroads could not be maintained. Some roads have made their entire profits, from the new business furnished by the increased products of their section. This is specially the case with the roads of Illinois, Wisconsin, and Iowa. The following tables will show the increase of canals, and vegetables suitable for man or beast, in the above five States, in the ten years, between 1850 and 1860, the period of greatest railroad increase.

	1850	1860.
Wheat (bushels).....	39,322,404	78,027,000
Corn ".....	177,320,381	275,292,910
Oats ".....	35,495,725	50,976,328
Other small Grains...	3,100,000	10,850,000
Potatoes.....	15,600,000	30,400,000

Aggregates..... 270,838,510 448,546,238

Here is an advance of 177,700,000 bushels of cereals in ten years, which is an increase of 70 per cent., or 7 per cent. per annum. Looking now to the tables above, we find the following rates of *annual* increase for the fifteen years succeeding 1850, viz :

Increase of population.....	5 per ct. per annum
" of wealth.....	23 " "
" of production....	7 " "

Thus we see that production has increased more than population, and wealth has increased much more rapidly than either. Production has been stimulated by railroads, and wealth increased not only with productions, but with the increase of profits and incomes.

Now, the moral of all this we can see at once, by looking across the Mississippi to the States and territories, on and near the Northern Pacific route. Let us take five States and Territories, which now make the Northwest, viz :

	Sq miles.	Population.
Iowa.....	55,045	1,000,000
Minnesota.....	83,531	350,000
Dakotah.....	100,000	20,000
Montana.....	60,000	20,000
Idaho.....	100,000	20,000

Aggregate..... 398,576 1,410,000

This is about 150,000 square miles more than were in the five original North-Western States; but, so large a portion of Montana and Idaho are mountainous, that these States and territories may be set down as only about equal in arable lands, to the five east of the Mississippi. The population is just about equal to those in 1830. Now, suppose the Northern Pacific made, and the collateral roads which will necessarily follow it, then in the next ten years that section will receive 1,500,000 inhabitants and five hundred millions in wealth. This is a matter of certainty, proved by the past experience of the country; and this is the way in which the Government will receive ten-fold the amount of aid it gives to such works.

PACIFIC RAILROADS.

LABOR--DESTITUTION--PAUPERISM.

ROOT, HOG, OR DIE!

Since the time when the descendants of Noah undertook the construction of the "tower whose top should reach to heaven," designed thereby to render them entirely independent of the favors of the Almighty for their eternal salvation, the tendency has been for the "children of men" to aggregate in large cities, taking the chances of the ever varying and changing fortunes connected with the fluctuations of trade. "The poor have ye always with you," is as true to-day as it was eighteen centuries ago, and no doubt it will be the case to the end of Time. The fact of their continual presence with us, however, does not relieve us from the necessity and duty of their care. We see by the published official reports that the number relieved by the public institutions of New York for the year 1866, was 265,158, at a cost of \$2,327,061; at the same time we are informed that "the number that will be returned for 1867 will be startling." This is for public charities alone—the poor house system—while the cost of the private charities and relief associations undoubtedly far exceeds the amount expended by the public treasuries.

Now that much of this destitution is the result of improvidence—perhaps, criminal improvidence—intoxication—is no doubt true; nevertheless, even this does not absolve us from the duty of their care and support, although it may dampen the zeal and lessen the feelings of satisfaction that is always the reward of doing deeds of charity and love. Still, there have been causes at work during the past seven or eight years, the natural results of which are the destitution and distress now so prevalent. These we have on previous occasions pointed out as being the direct or indirect

RESULTS OF THE WAR,

Which for its active agents drew so heavily upon the patriotic feelings and sympathies of the agricultural portions of the population, thereby reducing the food productions of the country, while at the same time an over-stimulus was imparted to many departments of the mechanic arts in the manufacture of war material, all of which was again changed by the cessation of hostilities. Labor—the only capital of the poor was again thus forced to seek another market. It is no trifling test, to abstract from the industries of a nation from one to two million pairs of honest, laboring, toiling hands, use them in deeds of destruction, create a vacuum in the mechanic arts, and again throw what is left from casual

ties of war back again upon the labor market, with all the wants and demands for labor products changed from "spears" to "pruning hooks" and "swords" to "plow-shears." We say with such a test as this there is no wonder at distress and destitution being prevalent.

THE REMEDY

Is, clearly, a return to agricultural pursuits, by a very considerable portion of the labor of the country, equalizing the products of town and country, and thus reduce the cost of both.

The delays of reconstruction, the total change of the labor system of the South, the lack of means to prosecute and the total failure of remuneration of the great Southern planting interests, are no insignificant causes of the dearth in the demand for the products of the anvils, the looms, and the work benches of the North. To these may be added, also the unprecedented contraction of the currency debt of the country, and the corresponding increase of the interest bearing bonded debt. All done in the interest, and for the benefit of Capital, and at the cost of Labor. Hence, we are not astonished to see the question raised and even dignified into a "popular hue and cry" by assemblages of both political parties, of "what are the government bonds to be paid in," that has of late so affrighted the nerves of the holders of public securities, and shocked the sensibilities of the advocates of "the immediate resumption of specie payments." "Necessity knows no law," and the "crying of children for bread," is a "law unto itself," that when pushed by the grasping and unrelenting hand of avarice, that will, in self defence, change the apparent "golden fruit" of the bondholder to ashes." We state these as facts, not as a defence to the doctrine—it is the result of natural causes, and no matter what is claimed as due to justice, and abstract honesty, the "pound of flesh" can not be taken, if to obtain it you spill the "heart's blood" of "Labor." These are great national causes of distress; and the country cannot, without condemnation, assume the doctrine of—

"ROOT HOG, OR DIE."

It is true, we have an immense national domain, containing millions of acres, in the bounds of civilization, yet unoccupied, that is ready waiting to reward the labors of the husbandman, with golden grain, and multiplying herds. It is needless to say to the habitual thinker that the really destitute can not avail themselves of this vast field of labor, as it requires the means of subsistence from "seed time to harvest," as well as the means of transportation, and "a thousand and one" other things that are not necessary to enumerate.

"The poor have ye always with you," and we cannot expect to escape the affliction, but we can mitigate the evil by judicious legislation, and adopting a policy calculated to encourage industry and stimulate labor. How

many thousands who severed the tenderest ties, and sacrificed their business and their all, to carry the musket to defend our homes, vindicate the integrity of our government, and its rights to *eminent domain* on every acre of land over which the "stars and stripes" had ever held its sway, that are now suffering from the depression of Labor, the natural combined result, as we have above shown, of the war and the government policy of contraction. Is it an evidence of our superior wisdom, and wonderful advancement in Christian civilization and philosophy, that while thus apply the "ring" to the snout, we tell Labor to "root hog, or die." If so, Labor will fail to see it.

INTEREST OF THE COUNTRY & DUTY OF CONGRESS.

That every idle hour and moment spent without producing a valuable result, is a loss, not only to the individual, but to the country, will be freely admitted by all. If, therefore, Congress can, by any means within its power, stimulate the dormant and suffering energies of the laboring millions, it becomes its high privilege and bounden duty to do so. Especially is this the case when by so doing the interests of all will be greatly promoted.

By adopting a liberal policy for the construction of the universally acknowledged needed works of internal improvement through the public domain—the Pacific Railroads—the value of the public lands will be enhanced more than the outlay, and by making use of the public credit in the form of more currency, issued as the works progress, receiving therefor the bonds of the roads, the accumulations to be sacredly devoted as a Sinking Fund to *pay the National Debt*, will result in abstracting the unoccupied labor of cities to the lines of the roads—will build up new towns and cities, with innumerable farms and ranches, vastly increasing food products—will gently stimulate the demand for the products of the factory and the forge—greatly increase the basis of taxation—and will electrify and wonderfully develop the product of our inexhaustible mines of precious metals, and thus set at rest for ever the question of "in what shall be paid the government bonds."

There may be many privations, but there is no pauperism in a newly settled country—every hand must produce a result—"they that will not work, neither shall they eat," becomes the universal rule, industry and happiness the consequence.

The receipts of the Western Union Railroad Company for the week ending February 29:

	1868.	1867.	Inc.	Dec.
Freight	\$6,908 70	\$3,295 28	\$1,613 42	.....
Passengers	3,522 00	2,374 00	1,177 00	.....
Express and Tel.	600 00	320 00	280 00	.....
Mail	375 00	375 00	.....	.....

Totals.....\$11,811 70 \$8,361 28 \$3,050 41

Receipts from January 1, to February 29:

1868.....	\$87,117 75
1867.....	66,745 35

Increase.....\$20,372 40

INTERESTS OF THE NORTH-WEST.

CORROBORATIVE TESTIMONY.

Overland from Minnesota to Montana.—Memorial of the St Paul Chamber of Commerce.—Tri-weekly Mails.—Telegraph.—Northern Pacific Railroad.—Annexation, &c., &c.

[From the St. Paul Daily Press.]

At a regular meeting of the St. Paul Chamber of Commerce, held on the 24th of February, Mr. J. W. Taylor, in pursuance of a resolution adopted on the 17th inst., presented the following Memorial to Congress, which, after discussion, was adopted by the Chamber, and directed to be forwarded to the delegation at Washington:

To the Congress of the United States:

The Chamber of Commerce of St. Paul, Minnesota, would respectfully present some considerations in support of the recent action of the Legislature of Minnesota memorializing your honorable body to establish a tri-weekly post coach mail service and to encourage railroad construction across the interior districts of Dakota and Montana, which separate the Western extremity of the Great Lakes and the sources of the Mississippi river from the channel of the Columbia river and the harbors of Puget Sound.

When it is considered how invariably the emigration of the country has followed lines of latitude, diverging from this normal movement of East to West only under circumstances of marked exception, and also that the limits of navigation on the St. Lawrence, the Mississippi, and the Missouri rivers occur in the general direction of the great navigable river of Oregon, what further argument is needed to vindicate the organization of an efficient postal system connecting points of such great commercial importance, to be followed, at an early day, by an extension of the railway and telegraphic systems of the United States?

At this moment the commerce between the Atlantic seaboard and the channel of the Mississippi river, requires and supports no less than seven trunk lines of railroads, namely:

1. From Charleston and Savannah to New Orleans and Vicksburg.
2. From Richmond and Washington by the Valley of East Tennessee, to Memphis.
3. From Baltimore, by way of Wheeling and Cincinnati, to St. Louis.
4. From Philadelphia, via Pittsburg, to Rock Island.
5. From Philadelphia and New York, by the Southern shore of Lake Erie, to Chicago and Galena.
6. From New York and Boston, by the International line at Niagara Falls, to Chicago and Prairie du Chien.
7. From Boston, Portland and Montreal, by another International line, to Detroit, Milwaukee and La Crosse.

These seven great thoroughfares from East to West represent and illustrate laws of trade and intercourse, which are destined to extend West of the Mississippi river, and be projected over plains and mountains to the Pacific coast. Making every allowance for the diminished necessities of transportation, in the pastoral and mining States now in process of organization beyond the hundredth meridian

of longitude, may we not reasonably anticipate that one-half of the railroad facilities existing Eastward, will be found indispensable, Westward of the Mississippi States? The idea lately suggested that a single railway in latitude 40° is sufficient for the development of the future States traversed by latitude 35° on the South, or by latitude 45° on the North, borders on absurdity—no less so than a proposition that the inhabitants of Wisconsin and Minnesota seeking communications with New England should be forced, in addition to this direct distance, to pass Southward from St. Paul to St. Louis, and Northward from Baltimore to Boston. Far otherwise were the sagacious views of the early projectors of a national system of communication between the Mississippi and the Pacific. When the distinguished citizen who is now Chief Justice of the United States presented its initiative fifteen years ago, Congress was induced to authorize a three-fold exploration, and it was in this form, equally just to the Northern, Central and Southern sections of the country, that the discussion progressed.

By common consent, precedence was given in 1862 to the Central route, but without prejudice to the claims of the other great lines drawn by the Government explorers, whenever, upon either, the same conditions of settlement, mineral discoveries, etc., should be presented. All sections were satisfied with the temporary precedence given to the Union Pacific enterprise, never anticipating the suggestion that the Government would be a party to the monopoly of postal facilities, and other forms of public encouragement, upon a single parallel of latitude. Your memorialists are confident that no such departure from a wise and just policy can receive favor at Washington. On the contrary, we are willing to believe that Congress will act on the broad and liberal policy lately announced at the Boston Commercial Convention, and extend the same aid to the communications central to the Northern and Southern tiers of Western States which has hitherto been extended to the Union Pacific Railroad.

The immediate purpose of this memorial is to urge the establishment of a tri-weekly mail from Fort Abercrombie, on the Red River of the North, to Helena, in the Territory of Montana. The Lake States and the Westward communities, adjacent to the Northern frontier, will also expect the national co-operation in connecting those points by railway and telegraph.

We advocate prompt and efficient measures for the establishment of a highway from the Great Lakes to the Rocky Mountains, on the ground of public economy. The nation can not afford, and will not be suffered by public opinion, to be longer negligent of the security of travelers and settlers in every portion of our dominion, and, to this end, no method is so simple, direct and adequate, as to establish liberal postal relations. A mail route, traversed by coaches tri-weekly, becomes the nucleus of settlements; the telegraph soon follows; private enterprise comes to the aid of the government; the cost of transportation, both to the government and citizens, is reduced, a condition indispensable to the success of mining enterprises; and thus, without fruitless Indian wars, and by the natural advance of population and industry, the wilderness is conquered, and instead of draining, contributes to the public treasury. The ancient Romans illustrated this course of things very impressively. Instantly on the conquest of a province, their legions marked and constructed military and colonization roads. Of

late, we have seen Russia, reaching, pervading, developing the distant Siberia by a great post-road from Moscow almost to Pekin, upon which prosperous mines, populous towns, a considerable agriculture and a productive trade with Central Asia, have been clustered—giving strength and wealth to the Empire. Baffled in the Crimea, Russia has largely relied on the relations of this Asiatic highway for the developments of policy upon the Pacific, which now promise to make the Czar more an Oriental than a Western potentate. It is the interest as well as the destiny of the United States in the ordinary course of Administration, and by moderate expenditures, to make the whole public domain productive; to render the mines of gold and silver profitable, and to transform dependent territories into prosperous States; and, in the series of wise and beneficent measures directed to these objects, the Post office is the most obvious and suitable agency. Bind together Minnesota, Dakota, Montana and Oregon, by the transmission of mails within twenty days, and a great impulse will instantly be given to the peace of the Plains and the development of the mountains—interests having close relations, and on which a large measure of the national prosperity now depends. Our Treasure product is less in 1867 than in 1866; the cost of transportation extinguishes the profit of working nine-tenths of the mines of gold and silver; and if the Government desires to double the yield of precious metals, it must aid to reduce by one-half the freight charges West of the Missouri river. A liberal and impartial system of overland mails would powerfully contribute to a result so vital to the national finances.

We beg leave to illustrate, by another prominent example, the manner in which a wise statesmanship may bring within a few years a degree of development, which would otherwise be postponed until another generation. When, ten years ago, India was exhausted by a mutiny of the native population, and its suppression after a desperate struggle, a railway system, penetrating the whole of the peninsula of Hindoostan, was deemed essential to its military occupation; and the Government of India offered a guarantee of five per cent. on the stock required to construct and equip not less than 5,000 miles of railroad. The total amount of capital raised under this guaranty, to April 1st, 1867, was £67,254,802; but of this amount the government liability has already ceased upon £42,584,649, the roads constructed with that sum not only paying dividends of five per cent. to the stockholders, but a surplus for reimbursement of previous advances by the government. Four thousand miles of railroad have thus been assured to India; and so wisely are the securities adjusted that this immense boon to the people will not be attended by permanent burthen to the finances of the Province. With the aid of these communications India hopes to rival the United States in the production of cotton. Whether we shall retain this great prize of commercial supremacy, remains to be determined; but in regard to another object of the utmost importance—the increase of our product of gold and silver—is it not apparent that we must seize and develop our Mining Districts, in a manner not unlike the Province of India? We call upon Congress to mature the measures, with the requisite financial safeguards, for the extension over the great interior of this continent, in all directions, not only of the authority, but of the beneficent protection of the nation.

Your memorialists will not repeat on this occasion, the arguments so forcibly presented by the Legislature of Minnesota, in favor of the mail service between Minnesota and Montana. We will only refer to one additional reason for action on the subject. The cession of Alaska will probably be consummated on the earnest representations of the people and press of the Pacific coast, that the timber, coal and fisheries of the new acquisition are a valuable addition to the resources of Oregon and California. If the country at large shall acquiesce, a public sentiment, already manifested quite distinctly at San Francisco, will become, general, that the intervening territories, if possible, shall be annexed to the United States. Their inhabitants, largely emigrants from the United States, will never consent to be transferred by Parliamentary edicts and without a popular vote to the distant and feeble confederation of Canada; and we urge that Congress will immediately forward the overland communications herewith proposed, to encourage the American sentiment now largely existing in Selkirk, Saskatchewan and Columbia, as well as to develop the resources of the contiguous States of the Union. We speak without reserve. Our fellow-citizens of the Pacific coast and the people of the North-western States have resolved that the Dominion of Canada shall find its Western boundary on the 90th meridian of longitude. Too long has a Fur Company been suffered to dominate over districts which can produce cereals as abundantly as European Russia. We have waited patiently for the removal of the jurisdiction of the Hudson's Bay Company, but we are not prepared for the substitution of Ottawa officials. Let Congress assure us of a tri-weekly overland mail, to be allowed in due time by the Northern Pacific Railroad; and the integrity of American territory from St. Paul to Sitka will be a fixed fact of the near future. The adoption of such a policy by the Congress now in session would probably influence the negotiations between the Secretary of State and the English minister at Washington, and as a result of these negotiations, your memorialists would rejoice to be assured that the cession of North-west British America to the United States, accompanied by a guaranty of a Northern Pacific Railroad, is regarded by Great Britain and Canada as a satisfactory preliminary to a treaty which shall remove all grounds of controversy between the three countries.

All of which is respectfully submitted,
J. C. BURBANK, President.
J. D. LUDDEN, Secretary.

The North Pacific Railroad.

[From the Detroit Post, Wednesday, February 26.]
To the Editor of the Detroit Post:

The legislation asked for from Congress, in reference to this great national enterprise, is as just as it is simple. It is to put the North Pacific Railroad Company,—to which land grants have been so far liberally made,—upon equal footing with the Central and Union Pacific Railroad Companies, and to provide effectually for the extension of the North Pacific Railroad through Michigan, by the way of the Straits of Mackinaw. The Central and Union Companies, beside the grants of land made to them, have a loan of United States credit. What the North Pacific Railroad Company asks for is a modification of this aid, in a way more secure to the Government and equally efficacious for the speedy com-

mencement and rapid prosecution of the construction of the road. The popular objections against increasing our public debt are so obviously just in the main, that there is danger of many members of Congress being swayed by them into opposition to all grants of land and manner of aid now asked for. But if, in reality, these grants and privileges asked for, can be made, for purposes necessary, meritorious and practicable, which will give stimulus to industry and furnish work to the laboring classes, without increasing the Government debt, and will actually tend to liquidate it at no distant period, it will commend itself to every enlightened patriotic statesman, as a policy or measure by no means to be despised and neglected. The subject is already being discussed, notwithstanding the almost absorbing interest felt in the great efforts for the reconstruction of the Southern States, and the demands for retrenchment and diminution of the public debt.

The bill of Mr. Ramsey, of Minnesota, introduced some time since, connects the interests of the Northern Pacific Railroad with a project for the purchase of a large portion of Canada. This would increase the public debt \$7,000,000 or more, and greatly peril the enterprise so important and necessary for the early development of our own North-western Territories. The easiest, most direct, and cheapest method to unite British Northern Canada to the United States is, to construct this road,—make annexation with their interest. Now, while the subject of a railroad to the Pacific, North of Lake Superior, attracts attention both in Canada and in England, the policy of the United States is clearly to anticipate any such movement, and secure the construction of the Northern Pacific Railroad in our own possession, which will not fail to frustrate the English movement, and in time unite the two countries by the very gravitation of interests. It is unwise legislation to unite great national schemes of dissimilar character in the same law. Let every important public measure stand upon its own intrinsic merit. To put a foreign rider on a bill may be thought a good legislative expedient or trick, but it will not gain the cordial support that may be necessary for popular confidence and success.

The bill introduced by Senator Howard is just one of the things needed, and as honorable in its provisions as is its author. It grants alternate sections of land to the Northern Michigan Railroad Company, which, when incorporated and endowed, will become an extension of the Northern Pacific Railroad. The grants are to be made in the same manner and to the same amount as provided for the latter. The road in Michigan is to run from Saginaw City to the Straits of Mackinaw, and thence to a point on Montreal river, near the South shore of Lake Superior. Should this bill become a law, and the loan of credit from the United States, or a guarantee of bonds be so adjusted and provided for as to put the Northern Pacific Railroad on equal footing with the Union Pacific Railroad, and protect alike the interests of the United States and of the States through which the road must pass, this great enterprise will soon be in efficient and rapid progress. The value of the remaining lands of the United States in the North-western territories will thus be increased in amount fully equal to what is granted. The regions will be settled half a century sooner, and the lands, now a wilderness, so much sooner go to increase the revenue. The judicious ex-

penditure of capital thus will, without impoverishing itself, create labor. Our debt has been fixed upon us by processes of destruction, rendered necessary for the preservation of our unity and existence as a nation. It can be best and most certainly paid, by means to restore and to "build the waste places." Let the dwelling places of wild beasts be converted into fit and safe abodes for civilized and Christian men. This can be done only by industrial labor. Capital so employed will bring our vast public domain into requisition. The field of labor thus expanded will develop earlier the material elements of the nation's progress. The pressure of present distress will be relieved, temptations to crime will be diminished, greater energy displayed, greater self-reliance induced, the means of meeting taxes generated, and happiness and plenty succeed squalid misery and want. Our great railroads, a force like their own engines;—the great modern "subduers of the earth," reclaimers of the wilderness.

The Government of the United States may, by judicious legislation, draw forth the capital needed to invite and reward labor, extend its area and resources, insure the solid progress and happiness of the nation, and provide means for the sure and early extinction of our national debt. The speech of the Hon. John T. Wilson, of Ohio, lately delivered on the subject of the finances, has thrown light into the midst of darkness, and shown how to pay the national debt without producing derangement or distress, or entailing crushing burdens on unborn generations. We shall notice it more particularly in our next communication.

MICHIGAN.

The Capital of the United States—Shall it be Removed?

ARTICLE II.

The Coat of Arms of the State of Missouri has two mottoes, both appropriate and both will apply to the great West in reference to the subject before us—"United we stand, divided we fall." If we are united, we can carry out any measure for the good of the people. "*Salus populi suprema lex esto.*" This last motto refers directly to the people—"The good of the people is the supreme law." That is all we want—all we ask for. If the people decide to remove the capital from its present one-sided and out-of-the-way location, to a more central point and a more genial climate, they will do it. When we speak of the people, we mean the whole people—the people of the West as well as of the East; the people of the South as well as the North. Let Texas and Arkansas be heard as well as Connecticut and Rhode Island; let Idaho and Nebraska speak as well as Delaware and New Jersey; let the miners of California have something to say in this matter, as well as the gold dealers in Wall street; let the pioneers who are now attending to the twenty thousand stations on the overland dispatch, mail, telegraph and emigrant routes across the plains and Rocky Mountains, be heard as well as the ten thousand salaried clerks in Washington City; let young and free Missouri speak as well as the ancient and afflicted commonwealth of Virginia.

This brings us to the Mississippi river, the Western boundary of the East, and the Eastern boundary of the great West; the great central artery of trade and commerce of the United States, and the bond of Union between the North and South.

The upward and onward course of this country is so progressive that it is necessary ever and anon to recapitulate the facts and figures with reference to the extent of our territory, the number of our States, and the population of the same. One or more new States are added to the Union during every session of Congress, and thus the movement has become so common that it excites but little attention. In the decade extending from 1850 to 1860, the number of our States increased from thirty-one to thirty-four, and five new territories organized; and now we have high authority that "our flag consists of thirty-six stars;" and if we count Nebraska, Nevada and Western Virginia, we have thirty-seven States. As the facts and figures in reference to States and territories are taken from the census report of 1860, it will be understood to apply to the condition of our country as it was at that time, instead of 1868. No more striking evidence can be given of the rapid advancement of our country in the first element of national progress than that the increase of its inhabitants during the last decade is greater by more than a million of souls than the whole population in 1810, and nearly as great as the entire number of people in 1820.

Let us look at the statistics of the country and see where this vast increase of population is found, and what effect it has upon the representation of the different States. We find that the preponderance of the representation is rapidly and steadily advancing Westward, and that regions unorganized and with scarcely a civilized inhabitant in 1790, now form populous States, with a larger representation than was enjoyed by all the States at that time. The increase in population, and, as a consequence, representation, in the new States of the great West, is prominently illustrated by a comparison of the representatives of Illinois, Indiana, Iowa, Michigan, Ohio and Wisconsin, under the census of 1860, with that of Virginia, Massachusetts, Pennsylvania, New York, North Carolina, Maryland and Connecticut, the six States having the largest representation, respectively, under the census of 1790; Virginia had nineteen (19) representatives, the largest number of any of the original States under the first census. Her representation is reduced under the census of 1860, to eleven, while Ohio, which was admitted into the Union in 1802, has nineteen representatives; Indiana, admitted into the Union in 1816, has the same number of representatives as Virginia; and Illinois, admitted into the Union in 1818, has fourteen representatives under the new apportionment; Massachusetts, with a representation of fourteen

under the census of 1790, is reduced to ten under the last census; Pennsylvania and New York, the one with thirteen, the other with ten under the first census, have, under the census of 1860, the one thirty-one, and the other twenty-three representatives. The ratio of increase in these two great States since 1850 is less than 26 per cent., while in Illinois the ratio of increase in the same period is 101 per cent., and in Indiana 87 per cent. With this increase of population in the States of the great West, how long will it be before New York and Pennsylvania, now the two most powerful States in the Union, will yield to some of their younger sisters, as Virginia first yielded to them, and has now yielded to two new States carved out of territory originally her own. North Carolina, under the census of 1790, had ten representatives; Maryland eight and Connecticut seven. These three States have, under the census of 1860, the first seven, the second five, and the third four; an aggregate of sixteen instead of twenty-five, as under the first apportionment. Thus we see that the power of the old States declines, while that of the new States increases more rapidly than they lose. Iowa, admitted into the Union in 1846, Michigan in 1847, Wisconsin in 1848, have each six representatives under the last apportionment; two more than Connecticut or Maryland, and only one less than North Carolina; and here it must be borne in mind that the ratio of representation under the census of 1790 was one representative to every 33,000 of representative population, while it is fixed by the last census to one representative for every 127,000.

The States which have their representatives increased under the last apportionment: Arkansas one, California one, Illinois four, Iowa three, Louisiana one, Michigan two, Missouri two, Texas two, Wisconsin three. The States which have their representatives diminished: Alabama one, Kentucky two, Maine, Maryland, Massachusetts, and Mississippi, each one, New York two, North Carolina one, Ohio three, Pennsylvania two, Rhode Island one, South Carolina two, Tennessee two, Vermont one, Virginia two. Under the Law, March 4, 1862, the number of representatives was increased to 241, by giving one additional member to the States of Illinois, Iowa, Kentucky, Minnesota, Ohio, Pennsylvania, Rhode Island and Vermont. It will be seen by this that the States having an increase in representatives are all in the West, while those diminished are all in the South and East. And as our public improvements progress, and new lands are thrown into market, and the rich soil of the West made more easily accessible, the ratio of increase will be much greater in the future than in the past.

And what a future is here outspread before the mind and imagination of the reader. Who may venture to predict or foreshadow the

growth and progress of the great West? Our career, as a nation, thus far, has been wonderful, and yet we have only commenced. But the other day, so to speak, Texas, New Mexico and California were annexed to the Union, and now they are among the richest and most promising portions of the republic. And still later that vast region of country, now known as Nebraska, Colorado, Nevada, Montana, Utah, and Idaho, was nothing more nor less than one magnificent wilderness. The indigenous wandering tribes of Indians and the vast herds of buffalo enjoyed without reserve the range of the prairie and forest. But how is it at this time? both the savage horde and wild herd are disappearing before the march of improvement; wild territories both of forest and prairie are cleared and populated; villages spring into towns, and towns into cities with a rapidity so marvelous that a stranger to the great West might ascribe it all to the work of some powerful magician. The telegraph leaves the sun behind to loiter by the dusty wayside of Time, and everywhere the train, an earthquake winged with steam, tramples over the land. Let the press of the great West agitate the subject, and advocate the same until Congress passes a law for a vote to be taken by *the People*.

VOX POPULI.

January 10, 1868.

How Coal is Obtained in Japan.

Mr. Locock, in a recent letter to the British Foreign Office, states: "I had an opportunity while there of visiting the works—if, indeed, they deserve the name—which have been undertaken for procuring the coal. Here and there, wherever the coal or shale which lay over it had been seen cropping out from the hill's side a horizontal passage had been run in, never more than 25 feet, and often only ten or twelve feet in length. In some of these burrows two or three men, crouched to the ground, were at work picking away at the sides with pointed hammers, and sorting each little piece of coal with their hands before throwing it into one heap or another, according to its quality. A few coolies, in the last stage but one of nudity, collect the coal at the mouths of these burrows, and carry it to where the road admits of its being transferred to the backs of bullocks, or to three-wheeled carts, holding about half a ton each, and drawn by one beast. In this way it is brought to the Hiogo market. A great portion of it is of a very inferior quality. Here and there, however, good specimens of a kind of anthracite are brought out of the hill's side. The seam which has been discovered is about 2 feet thick, and runs down towards the plain at an angle of about 15 degrees, or nearly that of the hills themselves. There is, therefore, good reason to believe that by boring in the plain below, the same, if not a better seam might be discovered. The Japanese Government are not insensible to the advantages to be derived from a more scientific working of the coal of Hiogo, and it is not impossible we may soon see a regular coal mine opened, worked by European machinery."—*The Engineer*

The Ohio River.

Its Tributaries—States Drained by it—Its Relation to Railroads—The Coal Trade—Statistics of Navigation—Surveys of the River—Plans for its Improvement—The Scheme for Draining Water from Lake Erie—Changes in the System of Boating—Ripples, Bars and Islands—The Enlargement of the Pennsylvania Erie Canal—National Importance of the Subject.

[From the Pittsburgh Chronicle.]

The following paper from W. MILNOR ROBERTS, the eminent engineer, presents so many subjects of interest to the citizens of Cincinnati and the entire Ohio Valley, that no apology is needed for its thus occupying so large a space in our issue of this week.

In a business and commercial view the Ohio is the principal tributary of the Mississippi river, and, although not the longest, affords, with its own tributaries, a greater length of safe navigation than any single river in the country. The Ohio itself is 1,015 miles long, which with tributaries like the Tennessee, which affords 700 miles of navigation itself; the Cumberland, with 700; Wabash, with 440; Green river, with 175; Kentucky, 90; Big Kanawha, 80; Big Muskingum, 65; Allegheny, 239; Monongahela, 115; and numerous others, making a total of 4,000 miles of steamboat navigation.

The area of country embraced in the Valley of the Ohio is 220,000 square miles, including parts of New York, Western Pennsylvania, Virginia, the whole of Kentucky, nearly all of Tennessee, parts of Mississippi, Alabama, Georgia, North Carolina, on its eastern and southern sides; with Ohio, Indiana and Illinois to the northward. It will be seen, therefore, that the richest agricultural and mineral regions of the country are drained by the Ohio, and that it flows through territory more densely populated and further advanced in manufacturing and commercial wealth than any of the Western rivers.

Before the days of railroads the Ohio contributed more to the advancement of wealth and civilization in the West than any other stream, and indeed yet we see the centres of wealth clustered along this river and its tributaries as though they were still, as they really are, largely dependent upon its trade and advantages. It is no accident that locates commercial cities upon the banks of navigable streams, but a political economic necessity, otherwise Pittsburgh might have been built thirty miles up Chartiers creek, while Wheeling, Cincinnati, Louisville, Nashville, Evansville and other cities might have been located in the interior with daily stage and express wagon connections. But while railroads have done much towards opening the interior, they have only succeeded in giving that interior a ready access to the river town and markets. Of course the development of the country mutually benefits it and the cities, by interchange of commodities. It is apparent, nevertheless, that it is the rivers which build the railroads just as the railroad necessarily builds the telegraph. Each takes the business which can at the most be of little importance to the other.

Where railroads compete with the river, they take some of its business in passengers and light freights away, but still the actual number of people directly interested in its navigation seems to increase, while its importance for the transportation of bulky articles is increasing vastly. Each has its separate sphere in the commercial world, and no

amount of legislation can amalgamate them. Although not our object in a newspaper sketch to enter into details of the business of this river—it might be well to impress upon the public the vastness of some branches of river trade, which year by year are increasing and which call with imperative tones more and more for improvements to meet the wants of millions of people.

THE COAL TRADE.

We need hardly tell the readers of the *Chronicle* that one of the indispensable articles, and which enters into the consumption of every family in our river towns from Pittsburgh to St. Louis and New Orleans, is *coal*. It is an article used alike by the merchant and manufacturer—the rich and the poor. The very light which is made to lengthen out our business days is derived from this article. The pumps which supply us with water and the locomotives which transport us from place to place, and all the boats in the local and through business of the entire 16,000 miles of navigation in the Mississippi Valley have become dependent upon this mineral. But while throughout the West, coal veins are widely distributed it so happens that they are often in regions not easy of access by cheap transportation, while very little of it is so well adapted to as many purposes as that from the headwaters of the Ohio. We find, accordingly that notwithstanding the greater distance, Pittsburgh coal enters more largely into the Western and Southern consumption than all the others combined.

The coal trade of Pittsburgh which was in its infancy fifteen years ago has now become a leading interest; there are upwards of ninety steamers, large and small, engaged in this business, belonging to Pittsburgh, over fifty of these are engaged towing coal down to the lower cities, the remainder being principally occupied at the mines and in the pools and harbors of the city. The barges in use number about fifteen hundred, with capacity varying from 12,000 to 20,000 bushels each (or 430 to 700 tons each). It is usual for tow boats to take from five to twelve of these barges down and return with a like number of empty ones.

The cost of transporting coal to Cincinnati (466½ miles), including return of barges, etc., is estimated at four cents per bushel, or \$1 12 per ton. To Louisville (598 miles), five cents per bushel, or \$1 40 per ton. To New Orleans (2,000 miles, estimated), nine cents per bushel, or \$2 52 per ton. (Accounting twenty-eight bushels to the ton.) No railroad can ever successfully compete with river navigation in transportation—taking these prices into consideration. Even these figures would be reduced should navigation be made safer. Last season was remarkable for its long continuance of low water. The tow-boats were detained three months longer than usual in getting out, so that great alarm was felt in Cincinnati. The papers there and in Louisville began to speak of a "coal famine." The retail price rose from fifteen cents to sixty cents per bushel; but it was not until it attained the latter figure that we heard of any attempt being made to ship by rail; we believe only one coal train through from Pittsburgh was dispatched. This being the case, it is easy to imagine how prices would rule in the lower cities if the navigation of the Ohio should cease. The total amount of coal shipped from Pittsburgh in 1866 was 40,000,000 of bushels. To this should be added what was brought, principally by river, for the vast consumption of the city of workshops, 36,000,000 of bushels, or a total equal to 2,700,000 tons.

A large coal trade is done from Wheeling, Pomeroy and other points to the lower country, eight or ten powerful steamers being engaged towing from those places. The registered steam tonnage of Pittsburgh is 54,000, and, including the barges, etc., for carrying freight and coal, is over 100,000 tons. These figures do not represent more than two-thirds of the actual carrying capacity, which should be set down at 150,000 tons.

This is all at the beginning of navigation on the Ohio. The general statistics of other points and the sum totals along the river can not be easily obtained, but it can readily be believed must amount to enormous figures. Iron ore is now being towed in large quantities from Missouri to Pittsburgh, while the general trade on the river in iron, salt, oil, lumber, grain, and the heavy merchandise business is becoming each year more important. About 3,500 steamers arrive and a like number depart each year from Cincinnati alone, other places in proportion. This amount of business on a river which is humorously said to be dry one-half the year and frozen up the other half, is doing well. Enough has been said to show at least something of the importance of the Ohio as a channel of commerce.

SURVEYS OF THE OHIO.

The General Government in 1838, and afterwards in 1844, commenced and carried on operations upon the improvement of the Ohio, and a party was also engaged during the remarkable low water season of 1838, in making a hydrographical survey. The operations at that time were under charge of the late Captain (afterwards Major) Sanders' Corps of Topographical Engineers, and in 1844 continued under Mr. Fuller, Civil Engineer, under the same Bureau. The survey commenced at Pittsburgh, and extended to Letart's Falls, 234 miles. In 1844 thirty-seven miles were added, completing a distance of 271 miles below Pittsburgh (terminating at Clipper Mills), since which time, until last summer, no regular survey has been authorized.

Before these surveys were commenced, the assumed distances from point to point varied according to the judgment of pilots. The results of the survey added greatly to the knowledge of the river, every portion, particularly at the shoals being carefully sounded, and the best water laid down in the channel routes. From the charts, etc., the engineers were enabled more readily to lay out rip-rap dams at the numerous shoals, and work was begun upon a great many of them. Below will be given a synopsis of the general plan of improvement commenced at that time.

RECONNOISSANCE OF THE RIVER.

Under an appropriation of Congress, made in the summer session of 1866, after a lapse of twenty-two years, during which nothing had been done, the surveys and improvement of the Ohio were resumed. The operations were placed in the charge of W. Milnor Roberts, a gentleman whose long experience in canal and river improvements, as well, also, extensively in railroads, has made him known in connection with engineering work in many States of the Union. Mr. Roberts' appointment was made so late in the season of 1866, and the water remained so high, that he was only able to make a general reconnoissance of the river, which he did in the months of September and October of that year, assisted by Capt. Geo. W. Rowley, Consulting Pilot, and Thomas P. Roberts, Assistant Engineer.

At once, to get at all the prominent fea-

tures of the river, in connection with plans for its improvement, seemed at the time almost impossible, but Mr. Roberts, with the aid of the matured judgement of one of our oldest and best pilots, whom we have just named, was enabled to take notes from which afterwards a more complete general report of the condition of the river was prepared, than any yet made public. From the fund of thirty-five years of piloting experience on the river, Captain Rowley was able to set down every log, stump or wreck, which made the navigation dangerous, a list of which is found in the said general report, and which was made very useful during last summer by the officers of the Snag-boat, Greenback, employed in the Government service. We give below the nature of these operations. During the winter of 1866 and 1867, contracts were made for a number of rip rap or loose stone dams, which, during the past season were carried towards completion as far as the low water permitted operations—most of them being finished.

In June of last year, 1867, Mr. Roberts organized two surveying parties—which were mainly recruited in Pittsburgh. Upon its becoming known that parties for exploring the middle and lower Ohio were being organized, young gentlemen presented themselves almost as rapidly as recruits for the three months' regiments. The surveying boats were built in this city and named the "Annie" and "Eliza," respectively, U. S. surveying boats. Their arrangements for sleeping and quartering eighteen men each, were as complete as possible. The boats attracted some degree of attention as they lay below the St. Clair street bridge.

SAILING OF THE TIDIOUTE.

Everything being in readiness by the last of June, the United States surveying steamer "Tidioute," under command of Capt. Rowley, took the two boats with their enthusiastic parties in tow and proceeded down the river. The steamer itself is a curiosity in its way, resembling more a railroad car with a large wheel astern than anything else. Its light draft and unusual speed made it very suitable for the purpose. The trip down to Clipper Mills, 271 miles, owing to numerous stoppages at dams then in progress of construction, required several days and was made by the young men quite a joyous occasion. The shore people, at the sight of the various flags and steamers, supposed that a circus was coming, and often assembled on the bank to see the little fleet pass along.

At Clipper Mills, Boat No. 1, under charge of Sigismund Loew, Assistant United States Civil Engineer, was dropped. Mr. Loew, as an Engineer, has long been known in the profession, and at Pittsburgh more recently, while on the Connellsville railroad, has made for himself many friends. Before coming to this country, in 1848, he was on the surveys of the Rhine river—which presents in some respects similar characteristics to the Ohio. Mr. Loew's upper division extended from Clipper Mills to Cincinnati—a distance of one hundred and ninety five miles—which latter place he reached October 10th, 1867. He has presented charts of this part of the river on a scale of 1,000 feet to the inch—showing the shoals, bars, islands, channels, &c., with the shore topography representing the bottom lands, hills, bluffs, the tributary streams, roads, towns, with a map of each, and, generally, the houses and names of property owners, making at once a beautiful and interesting map of the present condition of the river, which will be valuable always in connection

with future improvements, and hereafter remain an interesting geographical and historical sketch of the olden condition of things along the Ohio. Mr. Loew was ably assisted by Thomas F. Stuart, C. E., and afterwards by Mr. William Kennedy, as transit men, and by Mr. Alexander Coulter (brother of Colonel Richard Coulter) as leveler, and a fine corps of junior assistants.

Departing from Clipper Mills, the Tidioute towed the Eliza (No. 2) surveying boat to Cincinnati. The party on this boat was at first under charge of Alonzo Livermore, a civil engineer whose experience in that profession for more than forty years has been favorably known. Mr. Livermore some twelve years ago had charge of the Green river slackwater navigation in Kentucky. Being called by General J. H. Wilson to assist in the Mississippi improvement at Des Moines Rapids, Mr. Livermore resigned this position on the Ohio, when Mr. James E. Day, also an experienced Pennsylvania engineer, known in connection with the Youghiogheny river improvement, and numerous other engineering works, was given the command. His surveys developed below Cincinnati the same general details as the party under Mr. Loew above, in which duty he was assisted by Mr. John A. Garber, a talented engineer, as transit man, and Mr. John Bott, Mr. Koon, and others. The upper division, assigned this party, extended from Cincinnati to Louisville, a distance of 132 miles. Afterwards, however, they proceeded with the surveys below the falls, a distance of 108 miles, or altogether 240 miles below Cincinnati—making a total, with Sanders' old survey, and Mr. Loew's upper division, and forty-three miles below Evansville, of 749½ miles complete, below Pittsburgh. The party stopped for the season at Cannelton, Mr. Loew's party, after reaching Cincinnati, proceeded to Evansville, Indiana, and succeeded in surveying forty-three miles before the rising waters of the fall overtook them, compelling them to forego operations for the season. The distance surveyed by Mr. Loew's party was 238 miles, by Mr. Day's party, 240 miles, or a total of 478 miles. There remains now about 250 miles to complete the surveys of the river to Cairo.

[TO BE CONTINUED.]

A proposition is current to consolidate the interests of the Norwich and Worcester Railroad with those of the New London Northern. The Norwich and Worcester road is to be the connecting link between the New London Northern and Boston and Worcester, thus forming a very convenient passenger and traffic line by the Long Island Sound between Boston and New York. The first named road, resuscitated by the activity of business during the war, has become a regular 6 per cent stock. It is only 60 miles long. Its Boston business, moderately large, was not equal to that derived from its Northern connections through the Worcester and Nashua Railroad. The Boston, Hartford and Erie crosses the Norwich and Worcester about 30 miles from Norwich, and is to connect with the New London Northern at Willimantic, thus giving a new route to Boston from Norwich and New London 12 miles shorter than the present route through Worcester. The New London Northern have extended their route to connect with the Massachusetts Central Railroad, and the Norwich and Worcester stock, representing a cost of \$47,000 per mile, sells at 90@92, while the New London Northern stock, representing a cost of \$17,000 per mile, sells at 114.—*Tribune*.

MONETARY AND COMMERCIAL.

The chief point of interest in regard to the general state of money matters has been whether any, and what influence would be produced by the Impeachment question? So far there seems to have been absolutely no effect. Gold, which at the first moment of excitement rose to 144, fell in two or three days to 141, where it remains now, with very slight fluctuations from day to day. So also with government stocks. The variation is so little, as to show clearly enough, that in the opinion of the great money holders, the impeachment affair will have little or no effect on stocks, property or commerce. In fact, there is no reason why it should. It is simply a legal process, which will be gone through with fairness, and whose determination will be submitted to by all concerned.

In regard to the quantity of money there is in the whole country, since the Secretary has ceased contracting, just about the same quantity for the three months past; and that is enough. In Cincinnati, however, the money market has been quite stringent, probably because the country has needed an unusual quantity to transfer produce.

The following are the quotations for the past week, viz.:

	Buying.	Selling.
New York.....	1-10 dis.	par.
Philadelphia.....	1-10 dis.	par.
Boston.....	1-10 dis.	par.
Gold.....	140½	141
Silver.....	128@131	129@132

The following shows the fluctuations of the gold room during the week:

	Opening.	Highest.	Lowest.	Closing.
Feb. 27.....	140¾	141½	140¾	141¼
" 28.....	141¼	141½	141¼	141½
" 29.....	141½	141½	141½	141¾
March 2.....	141½	141½	141	141
" 3.....	141	141¼	141	141½
" 4.....	141¼	141½	140¾	141

Of the New York markets the *Tribune* of Wednesday says:

Government stocks are higher on all the issues, with an increased demand. The advance is from ¼ to ½ per cent. Border State stocks continue to advance, with large sales. Virginia New 6s sold at 45; Missouri 6s, 87½, and North Carolina 6s at 61½. There was also an active business in Railway mortgages, at full prices. In Express stocks the offerings are smaller. In the share market there is more activity and speculators for an advance are disposed to buy freely, with little regard to prices. For 1,000 shares of Michigan Southern 93 was bid, without getting any stock.

The market opened very strong and active on Erie; the first sales were at 66½, and under great excitement, is sold up to 70½, with a general rush made to cover shorts at the low prices of the last two days. New York Central was dull and heavy. Reading and Michigan Southern were strong. Fort Wayne was very active, selling at 100½. The North-Western shares continue to advance the common stock selling at 66½, and the preferred at 74½. Ohio and Mississippi improved and sold at 31½. The transactions in Erie were very large, but the rest of the list was rather dull, and the transactions very moderate. At the 1 o'clock Board Erie sold off to 69½, but, after the call, it rallied and sold at

72—an advance of 5½ per cent from the lowest price of the day. The rest of the market was dull. North-Western shares were lower. Cleveland and Pittsburgh sold at 94½. New York Central improved, and sold at 129¾. At the close the market was steady on the general list, Erie continuing to monopolize the entire attention of speculators; it sold at 74½, and then down 73½. The rest of the market was higher, in sympathy, and closed strong.

PROPOSALS.

To Bridge Contractors.

ENGINEER'S OFFICE LOUISVILLE BRIDGE CO.,
Louisville, Ky., February 17, 1868.

PROPOSALS WILL BE RECEIVED BY the undersigned until March 10th, 1868, for the construction of a portion of the superstructure of the Ohio River Bridge at Louisville, consisting of (10) ten spans of Pink's Iron Suspension Truss of the following lengths, from centre to centre of piers: four spans of 149.6 feet, two spans of 180 feet, two spans of 20 feet, and two spans of 227 feet.

Plans and specifications can be seen at this office.

ALBERT FINK,
Chief Engineer.
2-20,3
F. W. VAUGHAN,
Ass't Engineer.

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Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

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PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

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Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

B. E. SMITH, Pres't, C.&I.C. Railway, Columbus, O.
J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati.
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis, Aug. 2, [f.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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48 Dey Street,
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Oil Lands

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Kentucky & Tennessee,

FOR SALE BY

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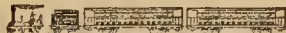
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G.W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday.

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts. Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

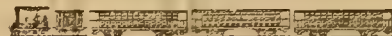
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15 foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12:15 p. m.

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at
1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

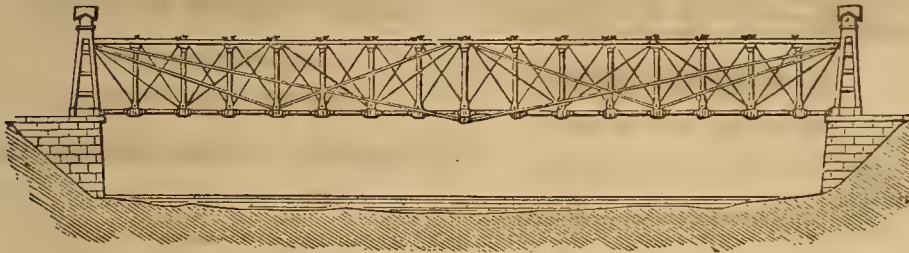
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent,
F. D. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and draft and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

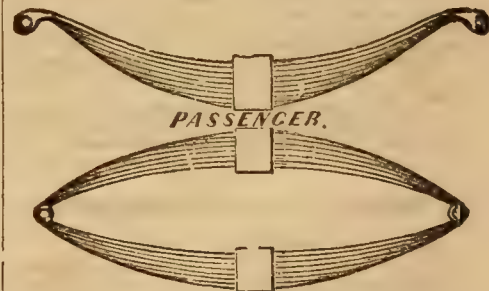
—AND—

MACHINERY OF EVERY DESCRIPTION

47 West Front St., Cincinnati.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR
Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for

Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT.

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester Branch. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the *ONLY ROUTE* by which passengers can procure *through tickets and through checks to WASHINGTON CITY.*

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, Corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

CHICAGO, GREAT WESTERN AND NORTH-WESTERN LINE—INDIANAPOLIS AND CINCINNATI SHORT-LINE



RAILROAD.

SHORTEST ROUTE BY THIRTY MILES

No change of cars to Indianapolis at which place it unites with Railroads for and from all points in the West and North-west.

SUMMER ARRANGEMENTS.

CHANGE OF TIME.

THE PASSENGER TRAINS leave Cincinnati Daily from the foot of Mill, on Front-street. Through to Indianapolis, Terre Haute, Lafayette and Chicago, advance of all other roads.

FIRST TRAIN—7:10 A. M.—Chicago Mail for Indianapolis, Lafayette and Chicago, connecting at Chicago with all Western and North-western trains. Terre Haute train leaves Indianapolis at 1:30 P. M.

SECOND TRAIN—1:20 A. M.—Indianapolis, Lafayette, Springfield, Quincy, Palmyra and St. Joseph Express arrives at Indianapolis, Lafayette, Springfield, Quincy, Palmyra, St. Joseph, Atchison, K. T. at 1:30 A. M. Terre Haute and Alton train leaves Indianapolis at 7:30 P. M.

THIRD TRAIN—5:00 P. M.—Chicago Express for Indianapolis, Lafayette, Chicago, connecting at Chicago with all Western and North-western Trains.

Sleeping cars are attached to all the night trains or line, and run through to Chicago without change of cars.

Be sure you are in the RIGHT TICKET OFFICE before you purchase your Ticket, and ask for tickets via Lawrenceburg and Indianapolis.

Fare the same and time shorter than by any other route. Baggage checked through.

Through tickets, good until used, can be obtained at the Ticket Offices north-west corner Broadway and Front sts.; No. 1 Burnett House corner, and at the Depot office, foot of Mill, on Front-street, where all necessary information may be had.

Omnibuses run to and from each train, and will call for passengers at all Hotels and all parts of the city by leaving address at either office.

H. C. LORD, President
W. H. L. NOBLE,
General Ticket Agent.

C. R. COTTON, Cincinnati Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 40 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

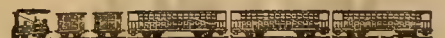
Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same. &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night. On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at 11.00 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

If Congress should only reduce expenses to \$300,000,000, and if his estimate from customs, lands, and miscellaneous sources should be realized, making, as they do, \$176,000,000, the internal revenue can be reduced to \$124,000,000. But if \$150,000,000 of internal revenue should be required, Com-

missioner Wells estimates that this can be collected as follows:

From distilled spirits (new system)	\$50,000,000
From fermented liquors	6,000,000
From tobacco and its manufactures	20,000,000
From income	35,000,000
From stamps	17,000,000
From legacies and successions	2,000,000
From banks, railroads, &c	10,000,000
From salaries	1,000,000
From gross receipts, including receipts of telegraph, express, and insurance companies, passenger receipts of railroads, steamboats, stages, lotteries, and theaters	7,440,000
From miscellaneous, (schedule A, &c)	2,100,000
From fines, penalties, &c	1,460,000
	\$152,000,000

And this, the Commissioner says:

"Would permit the removal substantially of nearly all of what are understood to be industrial taxes, and also offset the amount derived during the last fiscal year from the tax on raw cotton."

And he recommends a system which will remove annual taxes heretofore collected as follows:

Raw cotton	\$23,770,000
Iron and manufactures of	7,920,000
Cotton manufactures	9,230,000
Woolen manufactures	4,800,000
Other textiles	1,800,000
All other manufactures, except liquors and tobacco	44,020,000
Total	\$91,540,000

This will approximate a system of taxation which will relieve great burdens, increase industry, and on this subject give satisfaction to the people.

It will be observed, that the Committee of Ways and Means propose to accomplish almost exactly what Mr. Wells recommended. These measures, with others which will be adopted, will reduce taxation near one hundred millions of dollars.

In reference to the payment of bonds and greenbacks, Mr. Lawrence makes the following statement, which although contrary to the opinions of many people, evidently corresponds with that of the majority.

THE FIVE TWENTIES MAY BE PAID IN GREENBACKS.

The original act of Congress authorizing the issue of five-twenty bonds is that of February 25, 1862. That act also authorized the issuing of "United States notes," commonly called "greenbacks," and provided that:

"Such notes" * * * * "shall be receivable in payment of all taxes, internal duties, excises, debts, and demands of every kind due to the United States, except duties on imports, and of all claims and demands against the United States of every kind whatsoever, except for interest upon bonds and notes, which shall be paid in coin, and shall be lawful money and a legal tender in payment of all debts, public and private, within the United States, except duties on imports and interest aforesaid."

And this was printed in substance on every greenback issued, and was notice to all the world of what the contract was and is with the holders of this class of bonds. Congress

refused to insert a provision making the principal payable in coin. The interest is payable in coin—the principal in any "lawful money." Congress carefully omitting to make the principal of the five-twenties payable in coin and expressly declaring greenbacks a "legal tender in payment of all debts, public and private," except where otherwise specified, may have supposed that the same currency which paid the soldiers and which now pays pensions to them, their widows, and orphans—which pays all other loans, public and private, might equally pay this great debt of the nation.

All the States, except Massachusetts and California, pay in greenbacks the principal and interest of State debts contracted before they were known, and \$700,000,000 of public indebtedness—State, city, county, township, railroad, and other bonds—all rest on the same form of payment.

The Treasury notes issued under the act of July 17, 1861, before greenbacks were known, were refused payment in gold when they matured three years from date. About six hundred and eighty-four thousand four hundred dollars of the \$139,999,750 issued were paid in greenbacks and the residue converted into bonds.

The laws being, as stated by Judge Lawrence, it is quite evident there can be no legitimate demand for payment in gold, till the resumption of specie payments, when it will make no difference. He makes the following curious statement in regard to the price of gold and greenbacks for several years:

This will work no injustice to bondholders. The right of redemption was reserved to be exercised for the public benefit. It leaves the investment in bonds, at least, fairly remunerative. They were paid for, not in gold, but in greenbacks. The average price of gold and greenbacks has been thus stated for four years preceding 1866:

	Average price of gold in greenbacks.	Average value of greenbacks in gold.
1862	113 1-5	89 1/4
1863	145 3/4	68 4-5
1864	203 3/4	50 1/4
1865	132 1/2	64 15-16

The average price of gold in greenbacks for the four years was \$1 48 9/10, and the average value in gold of greenbacks was \$0 68 5-16.

Public creditors who paid for bonds with greenbacks at sixty-eight in gold have no right to complain if they are paid in greenbacks worth, as now, seventy-one cents in gold.

The following is a statement of the increase of wealth in the United States. It is an approximation only; but, in our opinion, it falls short of, rather than exceeds the truth.

The actual increase in wealth is thus shown by the statistics from the Census Bureau:

Real and Personal Estate in the United States.				
Decades.	Population.	Valuation.	Increase, per cent.	Decades.
1790 to 1850	3,029,827	\$619,977,247		1790 to 1850
1850 to 1860	23,191,876	7,135,780,228	1,051	1850 to 1860
1860 to 1870	31,443,321	16,159,616,038	126 45-100	1860 to 1870
		*\$19,089,156,289	167	1850 to 1860

* Returned by individuals.

The Ohio River.

Its Tributaries—States Drained by it—Its Relation to Railroads—The Coal Trade—Statistics of Navigation—Surveys of the River—Plans for its Improvement—The Scheme for Draining Water from Lake Erie—Changes in the System of Boating—Ripples, Bars and Islands—The Enlargement of the Pennsylvania Erie Canal—National Importance of the Subject.

CONCLUDED FROM LAST WEEK.

[From the Pittsburgh Chronicle.]

PLANS AND OPERATIONS FOR THE IMPROVEMENT OF THE OHIO.

The natural condition of the Ohio in low stages has been described as a succession of dams and pools. Every bar seems to be a natural dam, over the "comb" of which the navigation is more or less difficult in low water on account of the shoalness. If the river could be given its general average depth, of course including its pools, there would at all times be a sufficient depth of water, but one of the proposed plans, that of dredging away the bars with this object in view, has been generally discarded by engineers, it being apparent that when the pools should be thus drained out there would remain as an average only the old depths of the shoals—which would be in a measure reducing the whole extent of the river to one long shoal.

Plans for the radical improvement of the river by means of locks and dams, locks and dams with open chutes to pass coal fleets at moderate stages of water without lockage, and the same plan with the aid of retaining reservoirs, calculated to hold water enough to supply the deficiency of summer, and plans with exceedingly large reservoirs to hold enough to furnish at all times a depth of six feet or over in the unimpeded river have been proposed by different engineers. Other plans, such as making a wide canal at one side of the river, etc., have all been considered, but any of these would require a much larger outlay of money than has ever yet been appropriated for the improvement of the river. A common but erroneous notion exists that it is possible by draining water from lake Erie, that navigation could be maintained, the most serious objection to that plan being that however complete such feeding canal connecting the river at Pittsburgh and the lakes might be made, the water would run in the wrong direction. Pittsburgh, as it happens, being about 127 feet higher than the lake. We understand that all these plans (with the exception of the last) and others are being ably treated in a report to the Engineer Department, by the Superintending Engineer of the Ohio River Improvement.

Mr. Roberts upon taking charge of the river, with the limited public means at his disposal, decided upon recommending a further development of Captain Sanders' plan, originally designed and intended only for the improvement of the low water navigation.

THE NEW BOATING SYSTEM.

New elements in this question have arisen since Captain Sanders' time, the principal of which is the change in the method of doing the heavy business in tows of boats and barges drawing six feet or more. Of course any plan which creates an increase of depth on the shoals would be an improvement for all sorts of navigation. For the old fash-

ioned way of boating this object could be accomplished by contracting sufficiently the water on the shoals for the passage of single boats. But it is obvious now that such a plan would not accommodate the coal and towing trade, which has already become the most important and most economical mode of doing this business. It therefore became a serious question how to place rip-rap dams, which while benefiting low water, should in no way interfere with this large coal business. Naturally, as well as fortunately, the worst shoals are found at the islands, where in low stages there is seldom enough water to furnish two good channels; when by the closing up of one side by means of a rip-rap dam from the island to the shore, to turn all the water up to a seven feet stage, the object of adding more water to the remaining channel is accomplished. Generally this plan has succeeded in adding a foot or more to the navigable depth, and in somewhat lengthening the time during which boats are able to run. At some points however, a wide shoal in the open river is encountered, where the proper disposition of rip-rap dams is not a matter so easily decided.

THE SUMMER'S WORK.

Work at rip-rap dams has been going on during the summer at the following places, viz: *White's Ripple*, eleven miles below Pittsburg, where a dam from the foot of Neville's Island, extending down 2,500 feet, is being built, the principal object of which is to confine the channel to the right side, and prevent boats being drawn in to the left shore, which is shoal for a mile down. The cross-current to be checked here is created by the lower plane of water at the foot of the island, after it has flowed down five and a half miles below its head. In low stages no water takes the left side, and after the pools are drained out, the water is two feet lower at the foot on that side than it is on the other, naturally offering a "hole" for boats to be drawn into, and on to their destruction. Many thousands of dollars worth of coal have been wrecked at White's Ripple. *Logstown Bar*, eighteen miles below Pittsburg. A dry bar in the centre of the river divides the channel here. A dam closing the left side has made an improved navigation down the middle of the river for coalboats at a "coalboat stage," (usually eight feet,) 1,100 feet of old dam, designed for the old fashioned improvement, have been taken out at this place, over which boats can now safely run. *Twin Islands*, or the *Sisters*, eighty-five miles below Pittsburg. This place is noted in the annals of river men for its particularly shoal water. A dam confining the entire river to the right of both islands has been constructed. It is possible that further improvement may be attempted here by leveling down the "lumps" turned up by the struggles of numerous steamboat wheels. *Captina Island*, one hundred and eight miles below Pittsburg, the old dam closing the left of the island has been thoroughly repaired, so that there is no division of the water up to a seven feet stage. It has always been accounted a bad place. *Fish Creek Island*, one hundred and thirteen miles below Pittsburg, a place similar to Captina, and improved in the same manner, although not originally so bad. *Petticoat Bar*, one hundred and forty-six miles from Pittsburg, two semi-circular dams at this place partly built under Captain Sanders, were constructed to deepen the water on the shoal. Their completion increases the depth at stages, when formerly these dams were "drowned

out," leaving the water with but little increase in depth, when there was a moderately good stage in the river elsewhere for navigable purposes. The channel between them is sufficiently wide to make the passage of coal fleets entirely safe in the hands of our experienced river-men. *Muskingum Island*, one hundred and seventy-four miles below Pittsburg, work on this dam closing the left of the island is still in progress. *Blennerhassett's Island*, one hundred and eighty-five miles below Pittsburg, this is a romantic spot on the river to most people, on account of its historic associations, but to the sturdy river-man the real difficulties in the way of navigation at its foot have debarred him from enjoying pleasant thoughts as he passes along. The system of work required at this place, shows nearly all the different kinds of rip-rap dams in progress of construction. The river being nearly equally divided (as to amount of water) it was found necessary to close one side; then to shut off the water escaping between the foot of the island and the "tow-head" (or low island,) and finally to confine the water between two curvilinear dams in such a manner as to wash out the sand which formerly accumulated annually in large quantities on the shoal at that place, thus choking up the navigation.

Buffington's Island, two hundred and fourteen miles below Pittsburg, the old low water channel ran down the Ohio side of the island, but of late that side having become much obstructed with sand deposits, making a holding ground for roots and snags, it was determined to close it, and with the aid of a long dam down the Virginia shore, to confine the water somewhat to a new channel. Some river-men advocated closing the Virginia chute, but it is obvious that in a channel so narrow as the Ohio chute, fleets of boats would have great difficulty in passing, particularly now, since towing-fleets sometimes one hundred and eighty feet wide have to be accommodated. That side does not present the natural appearance of a river, which the broad easy Virginia chute does. The Engineers have adopted the excellent rule to "assist nature" without forcing too much.

These are the only points so far where new work at dams has been attempted, but quite a number of old dams, partially built by Captain Sanders, remain as yet unfinished. Generally speaking, they have the same object in view as those in present progress. The surveys and notes of the several engineering parties, have developed plans of like nature which may be applied hereafter.

One of the most successful low water improvements has been recently effected at *Brunot's Island*; this place, only two and a half miles below our city, known as Glass House Ripple, had always been ten to twelve inches shoaler than any point on the river. Boats from Cincinnati, and returning tow-boats, &c., often finding it necessary to remain for weeks and even months, tied up at McKee's Rocks and other points without reaching Pittsburg. A main difficulty in the way of improvement at Brunot's Island by means of a rip-rap dam, is that such a dam placed across either channel at the head of the island would interfere very seriously with harbor room and valuable landings, especially if the left side were closed. This was felt to be an important case by Captain Sanders. He left the place, owing in part, however, to insufficient appropriations, in very much the same condition that he found it. The usual channel has been down the right side of Brunot's Island, through Glass House Ripple, the other side having

been much obstructed by numerous rocks off Chartiers Creek and above that point. The Surveying and Inspecting Steamer Tidioute, however, under Captain Rowley, with a small engineer corps belonging to the upper division of the river, superintending construction, examined the left channel thoroughly, and on the recommendation of Mr. Roberts, a contract was made with Captain John Rodgers to remove the rocks. By the end of October a new channel was opened down that side, so that boats no longer need lay up below the city when they can run elsewhere below Brunot's Island. Upon the completion of work at this place, it will be recollected that a large number of our pilots and river-men visited and inspected the place, and in a letter which was published in the daily papers referred to this as a valuable improvement.

In the early part of June, a contract was made with Captain John Rodgers to remove snags and other obstructions from the river. Captain Rodgers at once got his boat, the Greenback, in order, and with a crane boat, two flats and a variety of suitable implements on board started down. The direction of affairs in these operations was given to Captain John Shouse, an experienced and most favorably known pilot and river-man from Steubenville, Ohio. During the summer and fall this party was hard at work and raised numerous snags, trees, wrecks, &c., besides also removing a number of rocks which have been a terror to navigators from the earliest days of navigation. Some of the snags removed, cut up and buried on the bank, have long had names to river-men as familiar as household words. The wrecking fleet advanced down the river, taking out the most dangerous obstructions for a distance of 325 miles below Pittsburg, before the water became too cold to work in. Among the wrecks removed by them was the hull of the ill-fated steamer Winchester, which lay bottom up in the channel above Liverpool, Ohio.

THE UTILITY OF RIVER IMPROVEMENTS.

The future value of this kind of improvement to the navigation can be better appreciated when it is known that the rates of Insurance on the Ohio are as high as ten and twelve per cent. per annum on the value of boats; on the Red and other rivers, more obstructed in this way, twenty per cent. is required, showing that it is owing to loss by sinking, more than anything else, that such apparently exorbitant rates are exacted. With the removal of the obstructions a serious tax on river commerce will be greatly lessened. It is expected that the entire river will be thus cleared during the season of 1868.

The improvement of the Ohio river is a subject that does not alone interest a class of the community here and at other places along the river, but connects itself with the interests of the Great West and South, and with the people of the general valley of the Mississippi in a thousand ways. Its importance cannot be well over estimated, and it is only because so many States and such a great number and variety of people are interested in its welfare, that we hear so little locally on the subject. Truly the National Government, if it looks to the development of any of its great internal commercial highways, could easily afford to devote to this river ample means for its improvement. To allow improvements, however perfect they may be in themselves, at points on it to be made, to stand idle for want of means to complete the whole, would be doing comparatively nothing, in view of considering it as it is, a great inter-State or national high-

way. The people along the Ohio and on its tributaries and connections in the West should speak out, and demand for it the fostering care of the General Government to be unintermittingly granted till it shall be rendered safely navigable at all times, save when closed and obstructed by ice.

THE PENNSYLVANIA ERIE CANAL.

Almost simultaneously with the improvement of the Ohio river, we may anticipate the enlargement of the Pennsylvania Erie Canal, 136 miles in length, extending through the beautiful valleys of the Beaver, Shenango and Conneaut, via Conneaut Lake to Lake Erie, at the flourishing city of Erie, where we have the best harbor on the lakes. We learn that during the past season this region and the line of the canal (which is in good condition, though with a present capacity of only sixty-five ton boats) were carefully examined by Mr. Roberts, the engineer, under whose direction this valuable work was constructed a number of years ago, and that he reports it to be entirely feasible at a moderate cost to enlarge the canal and locks so as to admit the passage of boats of 250 to 300 tons burthen, which may pass directly through from the Ohio river to the lake, and thence by the lake, and through the New York or the Canadian canals, to tide-water.

The importance of such an improvement as this to the people of the Ohio Valley, and especially to the citizens of Pittsburgh and Western Pennsylvania, West Virginia and Eastern Ohio, can hardly be overrated. The Canal Company are now applying to the Legislature of the State asking for a guarantee of bonds to enable them to execute this grand and most desirable work.

The Chesapeake Cities of Virginia and the Ohio River—Virginia's Urgent Need and Rail Necessity.

The very earliest internal improvements projected in the United States, included a line from the Potomac to the Monongahela, and a line from the James to the Ohio. Washington and Alexandria were to have communication with Pittsburgh—Richmond and Norfolk with Cincinnati. Neither of these anticipations have been realized. True, the completion of the Pittsburgh and Connellsville Railroad, jointly with the Metropolitan Railroad, will fill out a continuous rail line from Washington to Pittsburgh, but this route will be dominated and operated by a Maryland corporation, from Baltimore as its terminus; and so, whilst the Metropolitan road from Washington to the Point of Rocks will open from Eastern Virginia facilities for outlet to the Ohio river at Pittsburgh, Wheeling and Parkersburg, nevertheless the Maryland ownership of those facilities will warrant, indeed will constrain their use in a way to stimulate and develop the trade and influence of Baltimore as the commercial city of the Chesapeake.

Besides, the Potomac is the boundary of Virginia, whereas from the bay and river ports, and from the Eastern, middle and Western counties there is no route of communication open to the Ohio river and the great West—the scene of growing numbers and future empire.

The Virginia Central Railroad, on the 31st of July last, was open to Covington, 205 miles from Richmond; but to subserve the aims and interests of Virginia, this line must be carried through to the Ohio river, and there,

whilst intersecting the river system of the Mississippi valley, also form connections with the iron roads of Kentucky and Ohio, leading to Cincinnati and Louisville. One of the highways of commerce between the sea and the great West, must be on Virginia territory; and then on the James and Potomac cities will rise up; second only to those on the Delaware and Hudson.

Virginia must become commercial and achieve prosperity and opulence through development of minerals, increase of intertrade, and stimulation of mechanic arts. Natural resources, dormant in the rocks, have long enough supplied abstract matter for paper estimates of value; and now either Virginia must own a way into the West, or Maryland will stretch an arm down her great valley to Salem, there to intersect her great Southern line and divert its current North of Richmond and Alexandria via Harper's Ferry and Baltimore, exactly as the Parkersburg branch is operated for West and South-west communications, from the Patapsco as a base.

Overland Route from Alaska to St. Paul.

We had the pleasure of meeting yesterday a gentleman who had just reached the city, having been engaged since last August in making the perilous and adventurous overland trip from our new Russian American possessions.

The gentleman in question was one of the early employees of the Overland Telegraph Company, whose lines were to run up through Russian America, thence across to Russia and St. Petersburg, and has been in the employ of the company that has since carried on the work. The company having suspended operations for a time, he came down to the Southern part of "Russian America," and going up "Portland Canal," the salt water inlet which forms its Southern boundary, and, ascending Nass river (given on some maps as Simpson river), started in August last on his overland trip.

By making a portage he was able to cross by means of a line of small lakes from the head waters of the Simpson river to Fort McLeod, on the head waters of the Peace river. Passing down this branch he came into the Finley river, and soon into the Peace river proper; following this river, which flows along a beautiful valley through the Rocky Mountains, he kept on in his canoe with his Indian guide to Duvagan House. Here he went out of the way to visit Smoky river, so called from the country being clouded with smoke from the burning peaks, the soil being a mass of earth mingled with asphaltum and petroleum.

Continuing his journey, sometimes in a canoe, sometimes on a horse, and sometimes on foot, he crossed to Lesser Slave Lake, up the stream at its Northerly end, and thence by portage across to the Saskatchewan, and down it to the Carlton House. Here the water-courses were left altogether, and our adventurous traveler continued his journey on horseback and in dog-sleds to Fort Garey on the Red river, thence with dog-sleds which carry the mail, to Pembina and Fort Abercrombie, and thence to this city, whence he intends to proceed to New York, where he will shortly take the steamer for California.

One not accustomed to that mode of life can hardly imagine the difficulties, privations and dangers attending such a journey through a country, a large portion of which was in-

habited only by the Indians, and dependent upon them for supplies of food for the traveler and guide, which were often obtained with the greatest difficulty.

Our adventurer was for a considerable length of time in the central portion of "Russian America," or Alaska, having aided in clearing the route for the telegraph line, which, starting from the terminus of other lines which run up from California, through Oregon and British Columbia to the Southern boundary of our new possessions, thence has penetrated well up toward the interior. He is well posted as to its climate, the nature of the country and capabilities, being a shrewd observer, and having a large fund of general knowledge.

It will be seen that on some of the late maps, the Yowcaan river is represented as flowing into the Arctic Ocean, while on others this is but a branch of a large river which flows into the Atlantic near Behring's Straits. The latter is correct; this river, which is called the Kitchpitch (we don't claim to give the Russian spelling) being navigable for a thousand miles through the interior of the country. The country contains plenty of timber, principally pine, hemlock and cedar, and also large quantities of coal, which the Indians burn in their lodges, it being similar to Pennsylvania coal.

The land all along down the Southern strip is well timbered, and has abundant streams, which furnish the best of water-powers. The lumber trade with California and Oregon seems destined to be an important one as well as across to Asia, as it was necessary to ship immense quantities of telegraph poles from the Pacific coast to supply the Asiatic end of the line.

Some portions of the country are dotted with numerous lakes and occasional marshes; others are richly supplied with minerals, which have heretofore not been worked—for two reasons, one being the difficulty of access, and the other that all precious metals found, until the recent purchase, fell to the royal treasury.

Gardens are common, and fine vegetables are raised. Thermometrical observations have been regularly kept for four years at Fort Youcon, on the Youcon river, about midway between the Pacific and Arctic Oceans, showing a temperature about the same as Quebec and Montreal. The cod fisheries near the Islands along the coast are unsurpassed, while the finest furs are wonderfully plenty and cheap, being bought for a trifle from the Indians in the interior.

Many and conflicting statements have already been published in regard to Alaska, which makes the description of one whose acquaintance with the country is the result of recent and personal observations of special interest. We give his statements as they were furnished to us, withholding his name at his request, his position, and the business connected with his present trip rendering this desirable.—*St. Paul Press.*

THE CHESAPEAKE AND OHIO RAILROAD.—The Legislature of West Virginia passed an act on the 6th of February amending a former law, providing for the completion of a line of railroad from the waters of the Chesapeake to the Ohio River, in which a majority of the voters of a county or city shall be sufficient in voting on subscriptions to the road. No registration is required to enable persons to vote on this question.

Scientific.—Boiler Explosions.

CRANK AND CYLINDER.

The joint caption of crank and cylinder is given with the intention of showing the similarity of action and results of the forces involved in their analysis, by which it is thought the error of the received opinion as to the cylinder, may be made more apparent than previously noticed by me in several public media.

The alleged loss of power of 57 per cent. in the crank motion, has had its day,—but the same loss in mode and amount of 57 per cent by steam, or other expensive gas, in its action to rupture a cylinder, is yet received as orthodox.

The error consists in assigning the force exerted to rupture the circle of the cylinder at any two opposite points, to be as the pressure on a space equal to the diameter, instead of the semicircumference, or when it is equivalent, the quarter circle is selected for investigation, as the radius, instead of the arc. A correct knowledge of this question is especially obvious to the engineer in determining the ability of a cylindrical boiler to bear an intended height of steam, which by the received theory would lead to the dangerous over-estimate of 57 per cent.

The fig. represents radius = 1.
quarter-circle = 1.57
radial force, each = 1.
" collectively = 1.57

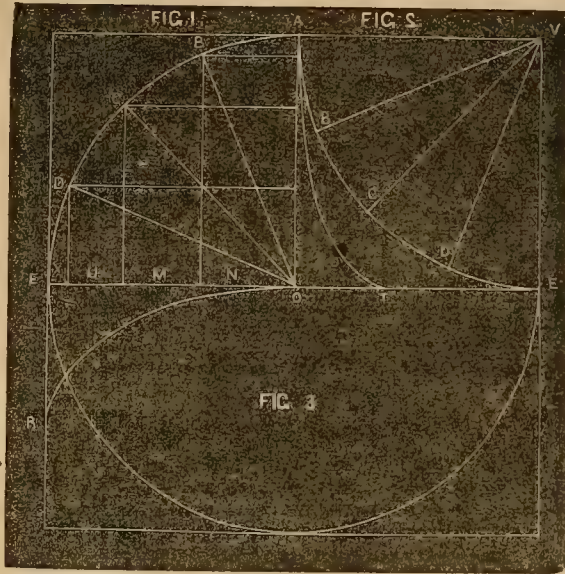
The rays or units of direct force on the in-face of the cylinder as A, B, C, D, E, fig. 1, may be resolved into two sides of a parallelogram, one side, the vertical lines, representing the forces to part the circle vertically at E, and the other lines horizontally at A. The mean of each of these forces on the quarter-circle is equal, and gives to each a parting force of .637 by the arc, in their respective directions, and resisting force equal to 1 on the radius (.637 \times 1.57 = 1.)

All of which is true, and the received theory of required resistance, so far, apparently confirmed to be as the radius. But by that side of the parallelogram ignored and unaccounted for, a transverse and expanding pressure of .363 distinct from the direct and parallel pressures of either the vertical or horizontal lines, but derived from each to the other, increases the ultimate units of rupturing force to 1. on the arc of 1.57.

For instance: the small space x is all the base given to the parallel force, to part the circle vertically at E compared with the force of the horizontal lines on its subtended arc D, E, which is a force to burst apart outwardly the circle at E, as much greater than the said small base as 39, to .076 for that division. This process is reciprocated on the arc A, B, when the horizontal lines tending to part the circle at A are assisted by the vertical lines, or forces in like manner. Then the sum of the forces on the quadrant to part the circle at either A or E is = 1.57, the direct and parallel being = .637, and the transversely assisting = .363 through the arc A E equal to 1.57.

Radical force.	Sum.	Mean force.
1.	: .637 :	.637 = 1. parallel.
1.	: 1.57 :	.363 = .57 transverse.

Force.....1.57 joint action.



AGREEMENT WITH THE CRANK.

Fig 1, crank $\odot A$ or $\odot E = 1$, of which the mean leverage or net force is .637, as with the separate and parallel force on the cylinder, requiring a resistance by the piston of 1. against being forced back by said force .637 on the crank during the length of stroke $\odot O$, which by the additional transverse and expanding force .363 under the joint action, is increased to 1. on the arc, as represented in fig. 1, and then requiring a resisting force by the piston of 1.57—not uniformly, but increasing as the dead point is approached by the crank (say) at E, as shown by the deviation of the curve $\odot R$ from the line $\odot E$, from which perpendiculars to the curve express at any point the additional required resisting (and also parting) force, over the force of 1. by the piston derived from the parallel force alone on the crank.

The ratio of increase is as the spaces N, M, U, X, are less than their respectively subtending arcs, and by which the curve is constructed. The arc A E being divided into 4 equal spaces of .3925 each, as per the following statement:

Less curve Less curve			
Arcs.	Spaces.	O R.	A T.
3925 — n	.3827	— .0098	— .0062
3925 — m	.3244	— .0681	— .0434
3925 — u	.2168	— .1757	— .1119
3925 — x	.0761	— .3164	— .2015

Additional to piston .57 .363 add. to arc.

The curve A T, fig. 2 represents the reciprocal additional transverse pressure only of .363 to the arc, and is subject to a similar explanation, as to mode and ratio of change, as with the curve $\odot R$ to the crank fig. 1, but under the uniform deduction as .363 is to .57 as above stated.

For, 1 : .57 :: .637 = .363

Fig 2 represents a quarter-circle A E of a cylinder with equal radial forces to those of fig. 1, and in directions similar to those of the crank at corresponding letters at A A—B B—C C—D D—E E; the detail and sum of these forces (1.57) and their directions are identical with those of the crank—the resistance V E expressing the rupturing force, being also in value to the resisting distance of crank $\odot O$ of its quarter-circle.

Let the circle A, E, H, E, fig. 3, be the ring of a cylindrical boiler, and it be desirous to aid in protecting the ring from rupture at points A and H. By the received opinion, a supposed connecting tie (as E E) has that apparent tendency to prevent the horizontal forces from parting the ring at A and H. But the effect of this tie would be to prevent and protect from rupture the points E E, and the rupture would be at the points A H intended to be protected, or at any two points transversely of the tie; for the direct cause of explosion, is by the pressure on the in-face, culminating horizontally at E, fig. 1, and is as much greater than the parallel lengthwise direction to separate the ring horizontally at A and H as 1. to .57. Therefore the tie assists to sustain this greater outward bursting pressure on the ring at E and E, and the rupture would be transversely at A and H where the on pressure is unguarded.

The required resisting force at E is as the versed sine inversely to the arc at any point from E to O. By the received theory, the force to part a sphere of (say) diameter 1. into two halves would be as the area of the section = .7854, whereas the additional transverse force is also = .7854, together 1.5708, or as the half surface. If a hemisphere were attached to the end of a cylinder, the force lengthwise of the cylinder, on the end would be as the area .7854, and the equal transverse force would be sustained by the attached edge of the cylinder, lengthwise of the said attached edge of the circle. If the parting direction were restricted to the one parallel course, there would be no lateral outward effect developed, and any person or object, however near, if out of the one direction, would be unharmed. In fact, the terms exploding or bursting would be inapplicable to the above condition.

THOS. W. BAKEWELL,
Late of Cincinnati.

Pittsburg, Jan., 1868.

METROPOLITAN (LONDON) TUNNEL RAILWAY.
—The number of passengers conveyed and the amount of traffic receipts in each year since the opening of the line ($\frac{1}{4}$ miles long) have been as follows:

Year.	No. of Passengers.	Gross		Net	
		Receipts.		Receipts.	
1863.....	9,455,175	£101,707		£56,537	
1864.....	11,721,889	116,489		70,776	
1865.....	15,763,907	141,513		86,008	
1866.....	21,273,104	210,242		125,683	
1867.....	23,405,282	233,180		143,109	
Totals....	81,619,357	£803,131		£482,113	

During the past half year the number of passengers was 11,916,924, and the amount of gross receipts £118,738, showing an increase of 947,215 passengers and £11,443 in receipts over the corresponding half year of 1866. This has been secured with an increase of only £442 in the working expenses.

The receipts during the past year have been affected by the statements made with regard to the atmosphere of the railway (since proved to have been totally unfounded), by the depression in trade, and also by the late inclement season, or they would have exhibited a still larger increase. They have, however, during the present half year been satisfactory. We have been comparing with the very exceptional receipts which accrued in consequence of the traffic of the streets having been partially stopped by the heavy snow and frost during the first few weeks of 1867.

Breaking of Rails and Axles.

To the Editor of the Tribune:

SIR: I do not know who first promulgated the idea that iron becomes crystallized by long use, continued strain, and repeated concussions. We hear a great many talk learnedly of the fiber of iron, yet I have met with very few who could tell me what makes iron fibrous, and I have asked the question hundreds of times. Manufacturers and dealers in iron nick a bar on one side and bend it over carefully, so it will show splinters, as a piece of oak or hickory would show if bent in the same manner. The customer looks at it and is highly pleased; but if he knew that the more foreign materials—metalloids—there is interspersed through the iron the more fibrous it will be, he would not be so well pleased. The laminae, or *splinters*, in merchant iron is owing to the intervening of materials which prevents the iron from uniting or welding. It is impossible to break either mild or hard steel so as to show fiber, because there is not enough of the necessary foreign substances mixed through it. And who does not know that a bar of mild steel is *tougher* and *stronger* than any fibrous iron? Now, in regard to iron becoming crystallized by concussion, &c., this idea—which I hope to show is fallacious—was based on the fact that where bars, shafts, &c., have accidentally broken they show a variety of crystals at the place of fracture; and it was supposed that a change in form and size of crystals had been produced by concussion and strain; whereas the fact is no change of the kind had taken place—the same variation having existed at the time the bar was made. I can go into any rolling-mill or forge in the country and show you the same thing in bars not a week old, and you may go into our mining districts where you will find plenty of old steel drills which have been subjected to millions of blows from heavy sledges; break as many of them as you please, and you will find a uniform crystal, and no diminution of strength. When railroad Superintendents order their rails to be made with "cold short" tops or heads, and "red short" webs and flanges, which is frequently done, they are sure to get two or more classes of crystals, and so long as bars, shafts, axles, &c., are made by welding a pile or fagot of bars together, this state of things will exist, and the consequence is that after the bars have been subjected to variable temperatures for a length of time, the strength of the iron is impaired, because there is a difference in the contraction and expansion of the different parts of the bar, which, in the course of time, destroys the cohesion of the molecules, on which the strength of the iron and steel depends. The crystal becomes disintegrated, the finer grained crystals expand more than the coarse do. Iron cables, which have stood the Government test, and then been allowed to lie *without being used* for many years are found to be weak and unfit for use. Can it be claimed that this change is caused by strain or concussion? Iron rails with steel heads, made with the greatest care, capable of standing the severest tests, showing the weld between steel and iron to be perfect, after being in use a few years give out, and the steel separates from the iron as if it had been merely glued together. It may be asked why rails break more frequently in extreme cold weather than at any other time. Many suppose it is owing to the frost in the iron; that frost effects iron and steel chemically. This is a mistake. The only effect frost, cold, or absence of heat has on iron to

make it contract, and when the bar is composed of coarse and fine crystallized iron a severe strain is produced; and every experienced worker in iron knows that when it is under a heavy strain it is very easily broken by a blow. Many suppose that steel is more brittle than iron in cold weather. This is another mistake. Steel is iron nearly free from metalloids, 10 to 75 per cent, (10 to 75-100 per cent) of carbon chemically combined, and it contracts and expands *uniformly*, and in proportion to the character of crystal. I was informed by a Russian railroad officer that in his country they formerly broke from 12 to 14 best Low Moore tyres where they now break one steel tyre. Is not this conclusive?
METALLURGIST.

The Mississippi River Railroad Bridge at St. Louis.

St. Louis, January 27, 1868.

The bridge will cross the Mississippi from near the foot of Washington avenue to the dyke on the Illinois shore. The breadth and central position of Washington avenue, the narrowness of the river at this point, and the height of the banks, give the highest advantages of situation. The distance between the extreme piers will be 1,584 feet, but the length of the bridge, including the stone approaches, will be about 3,700 feet. The bridge will cross the river on three arches. The central span will be 515 feet between abutments, and the other two 497 feet each. The piers will rest upon the solid rock which underlies the bed of the river. No other foundations would be secure against the action of the currents. Of the two central piers, one will be 170 feet high, and the other 195 feet. At the base, the piers will be about 100 feet by 50; at the spring of the arches, 87½ feet by 37½; and at the top, 75 by 25 feet. The piers will be faced with Eastern granite. The erection of these piers will be a vast and arduous work. To construct immense coffer dams in the middle of a rapid and powerful stream, to excavate the earth at the bed of the river to a depth of 50 or 80 feet, and to build towers of solid masonry nearly 200 feet high, will test the utmost resources of modern engineering. The stone for the construction of the piers will be procured from the quarries at Grafton, Illinois. These quarries lie on the bank of the Mississippi, 40 miles above St. Louis. A contract has been made for about 200,000 tons of stone. The material is a compact and durable limestone. The superstructure will be supported by ribbed arches of cast steel. Each span will be composed of four arches, placed side by side, with a lateral interval of 12½ feet between the arches. Each arch will consist of two steel ribs, one above the other, with a vertical distance of seven feet between them. Both arches and ribs will be strengthened with diagonal brackets of wrought iron and crucible cast steel. The height from the spring line to the crown of the central arch will be 51½ feet, and the height of the other two arches will be 47-5-6 feet. The width of the superstructure will be 52 feet; from railing to railing, 50 feet. On each side of the bridge there will be a raised footway 7 feet wide, a Nicholson pavement, 36 feet in width, will afford ample room for carriages, and a double track for street cars will furnish passengers with additional facilities for crossing. The railroad bridge will be directly underneath the carriage-way. Its distance from the upper works, to which it will be attached, will be 16 feet, two double tracks, each having a double gauge of 6 feet and 4 feet 8½

inches, will accommodate all the railroad tracks converge at this point. The weight of the bridge will be three tons per lineal foot, and its capacity for sustaining burdens four tons per foot. The bridge will be 50 feet above high water; but at the ordinary stage of the river it will be from 60 to 75 feet above the water. The City Directrix very nearly corresponds with the curbstone at the corner of Levee and Market street. In 1844, the river rose 7.58 feet above the Directrix, and in 1863 it fell 33.81 feet below the Directrix. This is the extreme range of high and low water. The ordinary difference of level is less than one-half of this amount. The bridge will cross each Levee on five stone arches, each having a span of 28 feet. On each side of the river there will be at the outward end of the stone-work a spacious and elegant toll-house, containing the offices of the company. On the West side of the bridge the railway will enter a tunnel at Third street, extend under Washington avenue as far as Ninth street, then curving broadly to Olive street, pass along under Eleventh street till it emerges in the bed of the old Chateau Pond.

On this spot it is purposed to erect a grand central station for all the railroads that intersect or terminate at this point. The average height of the tunnel will be 20 feet, its width 24 feet, and its length about 5,000 feet. The mean depth of the tunnel below the surface will be about 25 feet, and the height of the base above the City Directrix 33 feet. Two tracks of rails will be laid in the tunnel. The estimated cost of the bridge and its approaches, including incidental expenses, is:

Arches.....	\$1,665,639 00
Piers and abutments.....	1,387,163 60
Approaches.....	457,568 00
Tunnel.....	668,292 00
Land damages.....	705,736 00
Ten per cent. for contingencies,	488,439 86
Grand total.....	\$5,372,838 46

These were the original estimates. Later changes in the plan of the structure will probably reduce the aggregate to \$5,000,000. The officers of the St. Louis and Illinois Bridge Company are: Charles K. Dickson, President; Barton Bates, Vice-President; James B. Eads, Chief Engineer; John A. Dillon, Secretary. Board of Directors—Charles K. Dickson, James B. Eads, Wm. Taussig, Thos. A. Scott, Amos Cotting, Barton Bates, Josiah Fogg, John R. Lionberger.

The company act under special charters granted by the States of Missouri and Illinois. The franchises are liberal and ample. The members of the company are men of character and wealth. They are in earnest in this undertaking. They mean to push this work forward to an early consummation. The time allotted for the completion of the bridge is three years. The initial labor is already begun. The coffer-dam for the western pier is finished, and the excavations for the foundation are far advanced. * * *

New York, Philadelphia and Baltimore are deeply interested in the success of this undertaking. The great trunk lines of travel will cross the continent on the parallel of St. Louis. Economy of time is the supreme demand of commerce. The shortest distance and the least obstruction are the conditions which will determine the route of the highway to the Pacific. *A straight line from Philadelphia to San Francisco passes very near St. Louis.* In the mild climate of this southern latitude, the snow which barricades the northern routes will oppose no serious obstacle. The constantly increasing and almost insu-

perable difficulties which would attend such an undertaking at any point lower on the river, render it extremely probable that no bridge will ever cross the Mississippi below St. Louis. Hence the great cities of the Atlantic frontier should be virtually interested in the erection of a bridge which, lying virtually upon their own parallel, and at the lowest available point on the Mississippi, will afford them the most direct, least obstructed, and only unbroken southern route to the Pacific.—*Cor. N. Y. Tribune.*

RAILROADS ACROSS MOUNTAINS IN PENNSYLVANIA.—The highest elevation overcome in Pennsylvania, in a single rise, by a locomotive road, is on the Delaware, Lackawanna and Western Railroad from the Delaware river, where it is 288 feet above tide, to the Pokono summit, which is 1,969 feet above tide, making the altitude surmounted 1,681 feet. Scranton city is 739 feet above tide and 1,249 feet below the summit. The Moosic summit on the Delaware and Hudson Canal Co.'s Railroad, between Honesdale and Carbondale, is 1,888 feet above tide. The summit on the two Lehigh companies' roads near Wilkes-Barre is 1,630 feet above tide; Wilkes-Barre is 527 feet above tide; elevation overcome 1,103 feet, which is accomplished on a grade of 96 feet in the mile.

To get out of the Wyoming and Lackawanna coal basins across the water shed to the Lehigh and Delaware rivers, greater elevation is overcome than is encountered at the Allegheny Mountain. True, the Allegheny summit is higher above tide than any other mountain in Pennsylvania, but the Allegheny is twice as many miles distant from tidewater as the Wyoming, Pokono and Moosic, which rise between the Northern coal field and the great markets.

THE COAL OIL INCREASE.—The coal oil supply is reported to be increasing. A letter from Titusville complains that the price of oil still rules low, although for a few days a little improvement has been shown, and great hopes are entertained that two dollars may be again reached. The production is increasing even in this cold weather, and is now over eleven thousand barrels daily. The production, kept up, would give over four millions of barrels yearly. Now that oil is so cheap, up comes a flowing well, pouring out its three hundred and fifty barrels, over by the once-to-have-been famous Reno, marking out a new course or belt for oil veins; and another, twelve miles from it, near the Shambourg district, has been for three weeks flowing quite as much, destroying all the later theories about flowing wells, for these wells are cased, and it had been demonstrated beyond dispute that wells cased could not flow. So it goes, and the latest theory is always overthrown by the first frost.—*Pittsburg Chronicle, January 30.*

THE NEW YORK AND ALBANY RAILROAD.—We learn that the negotiations for the purchase of the Northern New Jersey Railroad by the Hudson River West Shore Railroad Company, have been successful, and the latter will enter upon possession shortly. This will have a powerful influence toward bringing to a successful issue the completion of the West Shore line.

The bill to facilitate the construction of the New York and Albany Railroad has been reported favorably in the Assembly at Albany,

and indications are favorable to its successful passage. The President, Mr. Joseph H. Ramsey, is indefatigable in his efforts to bring about this result. The report of C. W. Wentz, Chief Engineer, indicates two routes for the projected road, one by way of the Wallkill Valley, and the other known as the Kingston route, nearer the Hudson River.—*American R. R. Journal.*

The disorganization of the Southern States is forcing the capital, enterprise and emigration of the Eastern States into the West, thereby stimulating the growth of the West in a greater ratio than before the Rebellion. The receipts of Western railroads illustrate the progress westward in a striking manner, as seen in the following table of railroad earnings since the year 1863;

CHICAGO & NORTH WESTERN.

1863	\$2,811,544
1864	6,114,566
1865	7,976,490
1866	9,299,430
1867	11,532,348

MICHIGAN SOUTHERN.

1863	\$3,302,543
1864	4,120,152
1865	4,826,727
1866	4,650,328
1867	4,613,744

CHICAGO & ROCK ISLAND.

1863	\$1,959,267
1864	3,095,470
1865	3,313,514
1866	4,466,922
1867	4,153,812

TOLEDO & WABASH.

1863	\$1,439,798
1864	2,050,322
1865	2,924,543
1866	3,691,975
1867	3,783,816

The North-Western road is unprecedented in its increase, the earnings being in 1867 four times greater than they were in 1863: Toledo and Wabash are nearly three times; Rock Island are about double; and Michigan Southern show the least progress, being only about 40 per cent greater than in 1863, and with no increase, but a slight decrease for three years. The Toledo & Wabash is a competing line with Michigan Southern for the through traffic, forming a connection at Toledo with Chicago by the Fort Wayne route, and running about 520 miles in a direct line to the Mississippi and Iowa, and connecting with roads that join the Union Pacific. The direction which capital is taking into these Western roads for permanent investment is, therefore, fully justified by the great increase in their earnings since the Rebellion ended, notwithstanding the disorganized condition of political affairs and the general stagnation of trade. In North-West the increase for January and February, 1868, on the earnings of 1867 is \$275,000; in Rock Island for January, \$91,000; in Michigan Southern for January and February, \$94,000; and in Toledo and Wabash for January and February, \$105,000. The capital of Michigan Southern and Toledo and Wabash are about the same, \$20,000,000, and the number of running miles the same, the Toledo and Wabash running 520 miles from Toledo to Keokuk and Quincy, Iowa, and the Michigan Southern 243 miles from Toledo to Chicago and lateral lines, making the total number operated 523 miles. Michigan Southern Stock consists of 106,000 shares, and the Toledo and Wabash 57,000 common and 10,000 preferred.

MONETARY AND COMMERCIAL.

In reality, there is little or nothing to say about money affairs, which might not have been said at any time these 3 months. There is abundance of money for all regular business; but the rate of interest is high. 8 to 10 per cent. is too high for legitimate business, yet it is what is paid for most discounted paper. Cincinnati is now supplied with a much larger banking capital than it formerly was, and has a large number of merchants who use their own capital and borrow little. Yet we see there is a constant demand for money. The fact is, business has largely increased. Cincinnati has grown. Business has grown. There is a vast current of commerce flowing through the city, and there are many uses for money.

Gold has been declining ever since the Impeachment. This is convincing proof that no great evil is expected from the trial, or the conviction of the President.

The following are the money rates, since our last:

	Buying.	Selling.
New York	1-10 dis.	par.
Philadelphia	1-10 dis.	par.
Boston	1-10 dis.	par.
Gold	139	139½
Silver	127@130	128@131

The following shows the fluctuations of the gold room during the week:

	Opening.	Highest.	Lowest.	Closing.
March 5	141	141½	141	141½
" 6	141½	141½	141½	141½
" 7	141½	141½	140½	140½
" 8	140½	140½	139½	139½
" 9	140½	140½	139½	139½
" 10	140½	140½	139½	139½
" 11	139½	139½	140½	139½

Of the New York markets the *Tribune* of Wednesday says:

Governments continue heavy, and as long as Congress continues to discuss propositions to repudiate the debt no improvement can be expected. Banks in the interior keep the market fully supplied. Border State stocks continue in demand, and prices are higher. Railway mortgages are saleable at full rates, and the offerings of first-class bonds are small. The dealings in the miscellaneous list are limited, hardly enough to make quotations. The Express stocks are steady, and it is officially stated that no legal proceedings have been taken against the Merchant's Union. The dealings in Erie were large, but the fluctuations are not so wide. The lowest point of the day was 74, and the highest 80. The report of its officers as to its financial condition, and the steps taken to procure money for new rails and rolling stock, excites much comment, and keeps prudent people from dealing in it in any direction. Still there is a large class of operators sanguine in the belief that the road controlled by Mr. Vanderbilt would be a success, and are ready to buy it at each reaction. The dealings in Toledo and Wabash are large, and it was freely taken on buyer's option at the Morning Board at 51½@54½. After the call prices were lower, under a brisk demand for money, which disposed such operators to close out. Cleveland and Toledo fell to 104½, and New York Central to 126½. All the "Vanderbilt stocks" were freely offered with few buyers. At the 1 o'clock board prices were not supported.

At the second regular board the sales were large and with hardly an exception at a decline. After the regular calls the supply of stocks was large and the market a shade off. At the close the market was dull. Erie continues very feverish, selling at 76½ and 75½, closing at 75½. The Western shares were a shade firmer.

PROPOSALS.

To Bridge Contractors.

ENGINEER'S OFFICE LOUISVILLE BRIDGE CO.,
Louisville, Ky., February 17, 1868.

PROPOSALS WILL BE RECEIVED BY the undersigned until March 10th, 1868, for the construction of a portion of the superstructure of the Ohio River Bridge at Louisville, consisting of (10) ten spans of Fink's Iron Suspension Truss of the following lengths, from centre to centre of piers: four spans of 149.6 feet, two spans of 180 feet, two spans of 2 0 feet, and two spans of 227 feet.

Plans and specifications can be seen at this office.

F. W. VAUGHAN,
Ass't Engineer.

ALBERT FINK,
Chief Engineer.
2-20,3

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BALTIMORE,
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NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

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Fare to Washington City same as to Baltimore.

JNO. L. WILSON, Master of Transportation.
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JNO. W. BROWN, General Passenger Agent. } Dec.'67.

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BACON'S PATENT.

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-st package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2¾ inches in width, and under. For Tickets over 2¾ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of a Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

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J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
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Aug. 2, 1886.]

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Without Detention arriving in New York 3:15 p.m. next day, Sunday.

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TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

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Passengers to the Eastern Cities will find the

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The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

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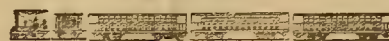
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W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:39 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

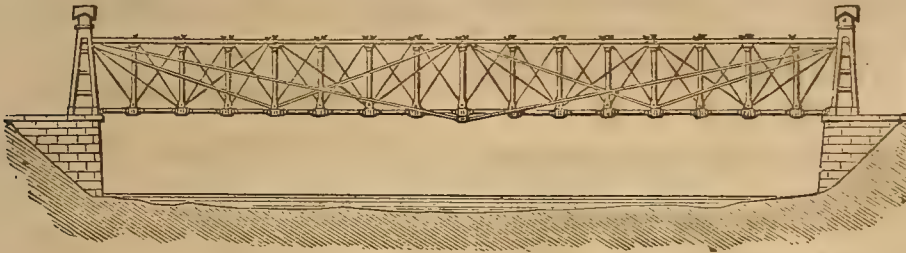
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business, or which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

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AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



(Through to Pittsburg without Change.)

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

47 West Front St., Cincinnati.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable

Baltimore and Ohio Railroad

This great national thoroughfare is again open for
Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and hence rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure *through tickets and through checks to WASHINGTON CITY.*

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wes. Ag't, Bellatre, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.00 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.50 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

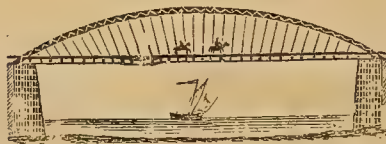
MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTUTERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continues to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 16 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same. &c.,
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER.
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore and Washington at 4.15 A. M., and 11.00 P. M. Leave at 8.25 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, MARCH 19, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connersville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:40 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

POLICY OF CONGRESS

TO THE

PACIFIC RAILROADS.

Politicians are naturally cowards. They dare do nothing, without first seeing which way the wind blows; but a statesman, to be a statesman, must be above this. *He* must institute measures, and if he cannot do this, he is not a statesman. The plan agreed upon in 1862, to aid and complete the Pacific Roads was defective. It was right enough in one particular, to provide certainly for one road getting through. But, even the plan to aid that was not the best or the cheapest, as we shall show. When that plan was arranged, it provided for a dozen different lines from the Mississippi, all of them to meet the main line; but provided for *none* on the Pacific side! It assumed that the California Central Railroad would be completed, as it has been, and aided that, but provided for no other from the Pacific. In this there were three essential elements of our geographical relations left out of view. 1. Our country is so immense, that at this very time two-thirds of it lies beyond the Mississippi, and full half in the regions through which these Pacific Roads go. Consequently it is impossible that one line in the midst of these vast, almost unknown regions should be enough, even for the present time. 2. The two thousand miles of Pacific coast could not be supplied, and its commerce extended by one line. 3. The same thing is true, in a still stronger degree of the North-west, and of the South-west on the Mississippi. Kentucky, Tennessee and Illinois, with the States opposite to them on the Mississippi, may be supplied with the means of Pacific intercourse by branches from points on that river; but what becomes of the States on the Lower Mississippi, and still more, what becomes of the States at the head of the Lakes in the North-west, in reference to the Pacific? Nothing can be more evident than that there *must* be a railroad communication from the head of Lake Superior, and the sources of the Mississippi to Puget's Sound! It is by far the most natural route for a Pacific Railroad on the continent. It will labor under some disadvantages of climate, but to nothing like the extent commonly imagined. It is not only possible, but it must be profitable.

Turning our eyes now to the South, we see the same necessity for connecting the Mississippi States, through New Mexico with the Gulf of California. It is a necessity. It is true, that it cannot be done immediately by individuals, and that the Government by non-action may delay these works for many years. But, would that be wise? Is it wise to delay them one year longer than is necessary? On the contrary, is it not wise to secure the completion of these works immediately, if it

can be done without increasing the Public debt. Can it not? Let us see. We hold the true *policy* of the Government is, to supply the defects of the law of 1862, for the construction of Pacific Roads. The policy should be then,—1. To aid the completion of the Kansas Pacific Road, through New Mexico to the Colorado; and—2. To assume the Northern Pacific as a national necessity, and provide for it. This we say, should be the *policy*. Now, is that policy in the present state of the country *practicable*. We think, on a calm review of the subject, that it is. But, it is not to be done without the boldness of true statesmanship. Politicians, we say are cowards; but statesmen are bold, because nothing but a wise boldness will enable a statesman to carry through great measures. In this case, even politicians might safely aid the plans heretofore proposed in the RECORD; for if there is a popular prejudice against issuing bonds to railroads, there is none against issuing greenbacks. On the contrary, an issue of greenbacks would be very popular. This we should not voluntarily do for any other object. But for the Pacific Railroads, this issue would not be large, would be gradual from time to time, and could not affect trade injuriously. To show this, let us recapitulate some of the ideas we have thrown out in the RECORD.

1. We should not issue bonds at all, and therefore should not increase the interest-paying debt; but we should pay directly so much money—say \$20,000 per mile in government notes, commonly called greenbacks. The company could not well make more than 200 miles per annum, this would be but *eight millions in a year* for both roads. Supposing the roads would require, as we suppose, 1,200 miles of new construction each, or 2,400 miles altogether, it would take six years to complete them; and \$48,000,000 in all. This would be a surprisingly small amount, if it will accomplish the object, and we think it will; for the companies will have two resources left, viz.: stock, and a land mortgage.

2. In return for this cash payment, the railroad companies are to grant their 1st mortgage bonds with interest. The result of this operation is that the Government *buys* the 1st mortgage bonds of the railroads at par. Now, what is the objection to this? Are not the bonds of the companies worth it? Let us see. The only thing we know about it absolutely is, that so far as they have gone, the *actual receipts* of the Union Pacific, and of the Pacific, E. D., show a net profit equal to the interest of the money, and if that is the case now, is it not perfectly certain that this will continue? It is proved, that *long lines* pay the best; and every mile added to the Pacific Roads will increase their relative profits. The advance made by the Government will not in any case exceed half the cost; and in any possible event the roads must be worth to the Government all it has

advanced. How stands the account? The Government advances *eight millions* of its notes, without interest, each year for six years, and holds at the end of that time, as many millions of dollars in bonds bearing interest. The account will stand on the treasury ledger, thus:

	Advanced.	Received.
1st year.....	\$8,000,000	\$8,480,000
2d "	8,000,000	8,960,000
3d "	8,000,000	9,440,000
4th "	8,000,000	9,920,000
5th "	8,000,000	10,400,000
6th "	8,000,000	10,880,000
Totals.....	\$48,000,000	\$58,080,000

Now, it will be hard for any one to show the Government has not gained by this operation; and it will be difficult to believe that two great Pacific Railroads are not security for that money.

3. This money—greenbacks will almost all be paid on the frontiers, to workmen at a distance, and will have two advantages, that it is paid out in a manner and in a length of time, in which it cannot possibly interfere with trade; and that it goes into the hands of laborers, and will thus stimulate industry, &c. For these reasons, we think such an issue of greenbacks in no way objectionable; and this policy will *secure the roads and not add to the debt of the Government*; for the 1st mortgage bonds of the railroads are a complete offset against the notes issued. Have we no statesmen who will take this matter up?

PACIFIC RAILROADS.

The People Demand their Construction.

THE WAYS AND MEANS.

Since the foundation of the government, no enterprise has occupied so much of the attention and met with such universal approbation as the construction of railroads across the continent. Indeed, we remember well when WHITNEY began to discuss the project full thirty years ago, in advance of the age as he was, yet the scheme of uniting the Atlantic with the Pacific oceans, when understood, met with general favor; and although the vastness of the enterprise, as well as the importance of the results to follow the completion of the iron link, are even yet but imperfectly comprehended save by a very few, yet it has been increasing in popular esteem ever since. Of this fact we have furnished abundant evidence from time to time, by the published resolutions of the various conventions of intelligent business men, and which has been most emphatically endorsed by the *resolves* of the gatherings of county, state and national bodies of every shade of politics. Among the most recent endorsements of the doctrine of

government aid in the construction of these roads is the following resolutions offered by Gen. HIRAM WALBRIDGE, in favor of the Northern Pacific Railroad, and adopted by the New York Chamber of Commerce:

Whereas, The developments of the resources of the United States by the opening of its vast unexplored territory to settlement by its own citizens and emigrants from foreign countries should be, in the present condition of the national finances, the first great care of its people and its Government, thereby to bring into tribute the products of new and virgin soil, and the labor of an increased population to the lightening of the burdens which now weigh heavily alike upon labor and capital; and

Whereas, Recent scientific explorations have shown the region of country between the Western end of Lake Superior and the Pacific coast, comprising the State of Minnesota and the wide territories of Dakota, Montana, Idaho and Washington to be unsurpassed in salubrity of climate, free alike from extremes of heat and cold, remarkable in the fertility of the soil of its valleys, watered by abundant streams, and abounding both in animal and vegetable life and mineral wealth; and

Whereas, It is evident that this important region, fitted by nature to receive a vast population, can only be opened to emigration and agriculture by the construction of a railroad which shall connect the great system of American lakes with the Pacific ocean—a project which the reports of able engineers show to be feasible, by the use of the navigable streams, with the building of 825 miles of railroad, and which has received the hearty indorsement of distinguished officers of the army, whose profession and experience render them the most competent judges, among whom may be named the General, U. S. Grant; the Quartermaster-General, M. C. Meigs; the Assistant Quartermaster-General, Rufus J. Ingalls, as well as Mr. Geo. Gibbs, for many years resident on the Northern boundary in the employ of the U. S. Government; therefore,

Resolved, That the Chamber of Commerce of the State of New York, keenly alive to every proposal which can add to the national productiveness and develop the national wealth, hereby cordially indorse the plan to construct the Northern Pacific Railroad, and respectfully urge upon Congress the propriety of affording to the Company which has initiated this great scheme, such aid as has already been granted to similar roads in other sections of the country.

Resolved, That this Chamber further recognizing the immense importance to this city of the development of the great lake region, of the increase of the belt cities which encircle it, and of the vast agricultural country of whose product they are the natural distributors, and believing that every addition to their prosperity will materially add to the wealth and prosperity of this city, which, from the date of the first construction of the Erie Canal, has been universally admitted to be the Atlantic gateway of North-western commerce, respectfully, but urgently press upon the representatives of this State in the Senate and House of Representatives, to use their utmost endeavors to secure for this enterprise its just proportions of Governmental aid, not only as a measure of national importance, but of State policy.

Resolved, That the Secretary of this Chamber send copies of these proceedings to the Chambers of Commerce and Boards of Trade

throughout the United States, and respectfully ask their co-operation in behalf of this great national enterprise.

We will here remark, that what is asserted as advantages to be derived by the construction of the Northern line of road, is applicable with equal force to the Southern route, and it is an oversight to suppose that New York City, or even Chicago, has not an equal interest in the construction of all. That there need be no rivalry between the three great projected lines, a very casual glance at the map will be sufficient to satisfy any person of ordinary intelligence and observation. It will also be observed that the Eastern termini of the three great routes, like those of nearly all roads now constructed in the Western and Middle States, have a direct convergence towards the great commercial and financial metropolis of the country; and although these great trunk lines will be tapped in the interest of various ports on the Atlantic seaboard, yet no one can doubt that the great bulk of the through traffic from the Pacific as well as the immense trade that will be created on the line of their routes by the development of the agricultural and mineral resources of the country will go directly to New York City to swell its already plethoric coffers.

We observe by the telegraphic dispatches from San Francisco that while the New York Chamber of Commerce has thus memorialized Congress in favor of the Northern Pacific Railroad, "the Legislature of California has adopted a memorial to Congress, asking the same aid for the Southern Pacific Railroad granted to the Central and Union Pacific Companies."

This is no more than right, and will equally develop all portions of the country alike. As a matter of curiosity to those who have not given this subject as much thought as they have the balances in their ledgers, or the majority to their party at their last town meeting, we would suggest that they take a map of the United States, or of North America, and stick a pin in at Chicago, as the initial starting point, and by a thread measure the distance to the Pacific ocean, and they will discover that the South-west route has the advantage in an air line, over all others. Hence, it is but fair to argue that even Chicago has an equal interest in the construction of the more Southern as well as the Central and Northern routes. With the present knowledge of the agricultural as well as the mineral resources of each, widely separated geographically as they are, and differing as they do in altitude and climatology, none will dispute that the Northern route with its upper Missouri, Saskatchewan and Red river valleys tributary to it, will have abundant resources for a profitable business; while the Southern route will have the great Santa Fe trade, which means a large portion of the commerce of two or three of the Northern States of Mexico, as

well as the rich and fertile valley of the Rio Grande, with the boundless and never-failing pasturage of the mountain slopes and mesas of New Mexico, without counting the resources and traffic beyond Albuquerque of the Zuni valleys and the Little Colorado and the Pacific coast beyond, in both cases entirely independent of the legitimate traffic of the Union Pacific or Central route, and that they will be at least equal if not superior to the resources that will contribute to its success.

Neither can the claims for the fostering care and developing assistance of the General Government be justly withheld from those communities already established along the line of the Northern and Southern routes when it has been so liberally granted to a more recently located and less dense population on the line of the Central.

THE WAYS AND MEANS

Best available to aid in the construction of all the three great routes, we have before shown to be the aid of Government, granted to all alike in currency—greenbacks—(not bonds) for which the government should receive the *first and only bonds of the roads* as security for its advances, the proceeds of these to be properly reinvested and secured, and sacredly devoted as a basis for a *Sinking Fund* whereby to extinguish the great National Debt. This would solve and set at rest forever the now perplexing and disquieting question of "in what are the government bonds payable?" The increased product of the precious metals would admit of no cavil on this point, but would fix it to the satisfaction of every holder of securities, and would add some thousands of millions not only to the imaginative but real exchangeable wealth of the country, by certainly changing the now mere indefinite promise to pay to a real actual dollar. As to finally settling the question of whether "the 5-20s are payable in gold" before any further aid is given, if the construction of the roads have to wait for that, their advocates might as well "hang up the fiddle," for it will be found just as easy to turn Niagara up stream as to stop the mouths of "babbling politicians."

Sons of Toil—How assisted.

"A million of men and women, able and willing to work, are to-day without employment, without food, and without shelter in this land of boundless resources."—*Hon. S. F. Cary, Speech of Feb. 24, 1868.*

The honorable gentleman has stated, or rather probably understated a most lamentable fact; but in all his public efforts has omitted to suggest any really feasible or practical remedy. "The poor have ye always with you," has, as we have on a previous occasion stated, lost none of its pungency as a maxim, from its great antiquity. That we have a vast public domain that is freely offered as homesteads to the energetic and industrious is true; but

the really suffering, referred to by the honorable gentleman, are not the class that can avail themselves of this kind of magnanimous bounty. It would be just as much an act of real benevolence to say to the hungered "be ye fed," as it is to talk to the really indigent about "cultivating the public lands, and becoming rich." "How can they go, unless they be sent," is very pertinent to the present case. Legislation should be had that will encourage or create labor, and while it affords a reward to the laborer, yet will be a positive benefit to the country. This can most efficiently be done by aiding in the construction of the great railroads across the continent through the public domain, whereby labor will be drawn from, as well as furnished to, the great cities and manufacturing districts, while others will thus be enabled to acquire lands and cultivate them—the public property rendered accessible and valuable—agricultural products increased—the mineral resources developed—and by a judicious system of investing the public credit, as we have frequently suggested, create a Sinking Fund and pay the National debt.

Erie Railway.

REPORT OF THE EXECUTIVE COMMITTEE OF THE BOARD OF DIRECTORS TO THE STOCKHOLDERS.

The directors of the Erie Railway Company herewith submit to the stockholders the report of the Executive Committee made to the Board March 9, 1868. The Executive Committee beg to submit to the Board of Directors a separate report of their doings under the powers conferred upon them by the Board on the 19th day of February last, by the following vote:

It being necessary for the finishing, completing and operating the road of the company to borrow money.

Resolved, That under the provisions of the statute authorizing the loan of money for such purposes, the Executive Committee be authorized to borrow such sum as may be necessary, and to issue therefor such security as is provided for in such cases by the laws of this State, and that the President and Secretary be authorized, under the seal of the company, to execute all needful and proper agreements and undertakings for such purpose.

Early in the winter the President called the attention of the committee to the condition of the road and to the probable wants of the company during the coming summer. At several sessions of the committee the subject was informally considered, and it was discussed, as well between the members of the committee as with Mr. Riddle and the Vice President, and it was substantially agreed to by all, that the best interests of the company called upon us, so far as we might be able to do so, to replace iron with steel rails whenever renewals were made, and to double track the Delaware Division also with steel rails. It was also supposed that the new storehouses now being constructed for the Central and Hudson River Railroad, in St. John's Park, would give them such an advantage over us in the transportation from storehouses of heavy freight destined for competing points in the West, that we should be forced to construct equally good accommodations at Long Dock.

Several private parties were in negotiation with us for the privilege of erecting such storehouses, as well as of erecting grain storehouses and elevators, but we thought it the best policy for the company to own the buildings if possible. The Superintendent had also informed us that the new equipment was needed for the increasing business of the company, and we had informally determined that when these things should so take shape that we could make a definite report thereon to the Board, we would advise that the necessary capital be raised by the sale of convertible bonds of the company, under the powers conferred upon the company by the General Railroad Law. Of the power to issue such bonds, and of the right to comply with the terms of such a contract by authorizing the conversion of such a bond into stock, we did not entertain a doubt. Our predecessors had claimed and exercised the right of increasing the capital stock of the company by conversion of bonds as early as 1863, and had reported the same to the Legislature, and had continued to exercise the right and to report their actions to the Legislature without criticism. The New York Central Railroad Company had exercised the same right also to the amount of over \$3,000,000, and had from time to time reported their doings to the Legislature without criticism, and the holders of the stock created by such conversions in each company had exercised their right of voting, as stockholders, without challenge. The same may be said of the Hudson River Railroad Company and of most of the railroad companies in this State. The construction of the law was universal in favor of the right to issue convertible bonds, and to convert those bonds into stock if called upon, even though the amount of capital stock should be increased thereby beyond the amount named in the charter, and it never entered into our heads to doubt a right so universally claimed and exercised.

While we were maturing these schemes for increasing the efficiency of your road and its equipment, we were also, under the authority conferred upon us by you, negotiating for the extension of its business connections, so as to reap the full advantage of the new capital to be put in the property. We contracted with the Michigan Southern and Northern Indiana Railroad Company to have them put down a third rail on their road so soon as other parties should take the broad gauge to Toledo. It is needless for us to point out to you the immense value of this connection to the Erie Railway Company. We also consented to the deposit of the Bonds of the Boston, Hartford and Erie Railroad Company, issued under the agreement between that company and this company, as collateral with several parties who loaned their property to aid in the construction of that valuable connection. And just as we had so far completed these several important matters as to be ready to report them to you, we received reliable information that an attack in the Courts was immediately to be made upon the Erie Railway Company in the interest of the New York Central Railway Company, to restrain us from extending our connections and to localize our road—in fact, to destroy its value as a competitor with that powerful company. The first blow struck was a suit discrediting this company, by charging a former board as having been in collusion with Mr. Drew in certain alleged frauds in his contracts with the company, and the present Board as guilty in permitting the conversion of the stock of the Buffalo, Bradford and Pittsburg Railroad Company. The

second blow followed soon after in the summary removal of Mr. Drew from his office as director, and a prayer for his removal from his office as treasurer. One of these suits was in the name of Mr. Frank Work, then a director in this board, and the other was instigated by him, notwithstanding the fact that he voted to make Mr. Drew a director and the treasurer of this company, with a full knowledge of all the facts which he charges to be fraudulent, and the further fact that he voted for the conversion of all the leases of the company, including the Buffalo, Bradford and Pittsburg road. The motive for this otherwise unaccountable change of front on Mr. Work's part is to be found in the well-known fact that he was put into this board in the interest of the Hudson River and Central Railroads; and that when we refused to become parties to the schemes of Mr. Vanderbilt and his friends to create a gigantic monopoly for the benefit of the Central line, Mr. Work's interests were exposed.

It was under these circumstances that you gave us authority to issue and sell convertible bonds for the purpose of completing, finishing and operating our road; and, although owing to the hostile presence of Mr. Work, we could not discuss this matter as freely as we would have wished, yet you reposed a generous confidence in us, and, we believe, anticipated in advance what our course would be.

There was but one course open to us as prudent men charged with the protection of the interests of the Erie Railway Company as distinguished from those of rival lines—namely, to secure, before it was too late, the means to meet the necessary expenditures we have alluded to; and after full discussion of the matter we authorized the creation, issue and sale of \$10,000,000 of convertible bonds, the entire proceeds of which would not be more than enough for the contemplated improvements.

Notwithstanding the unwarranted attacks upon us, we took no steps to defend ourselves. We continued our negotiations with the New York Central, Hudson River and Harlem Companies for the consolidation of rates. Some of us were slow to believe that they could be implicated in such proceedings; and all of us thought that we ought to continue to maintain amicable relations with them so long as we could do so without a sacrifice of our self-respect. The next of these suits, however, made it our imperative duty to take steps to protect the Erie Railway Company; for we were now enjoined—and still at the suit of Mr. Work—from carrying out our agreement to convert our convertible bonds into stock. When you remember that, independently of the ten millions of bonds which we authorized as above to be issued and sold, there are outstanding some nine millions more of bonds which are convertible into the common stock of the company, you will see how disastrous it may be to our credit to have a Court assume to compel us to repudiate our contracts. We were further enjoined from making certain transfers of stock—from carrying out our contracts with the Michigan Southern Company, and with the Boston, Hartford and Erie Company; and the injunction further contained the usual shots against Mr. Drew. There was no mistaking the purpose of this suit. It meant destruction to the credit of the Erie Railway Company, the localization of its traffic, the severance of its terminal connections, denial of the means necessary to give it a proper, suitable or safe equipment, its prostration to the interest of the New York Central Railroad Company and its final administration in their interest—and all this

was done at the instigation of one of our own directors. We accepted the issue and authorized the commencement of a suit, in which Mr. Work is enjoined from serving as a director in this board and from proceeding with his suits. Copies of these proceedings will be furnished to each director, and we hope you will carefully read them.

The Senate has taken this matter up, and a committee has been appointed to examine into the condition of the company and into the charges made against it in the newspapers and in the Supreme Court, and the hearing is to commence on the 10th inst. To this tribunal we confidently appeal. If it be true that, in converting \$3,000,000 of bonded debt, and in contracting to convert \$9,000,000 more (irrespective of our late proceedings) the Erie Railway Company has exceeded its corporate powers, it is equally true that the New York Central Railroad Company has exceeded its powers in converting \$3,200,000 of its bonded debt. And it is in the power of the Legislature to afford both companies, by ratifying acts, the fullest protection. And on the other hand, if it be true, as we believe it to be, that the Legislature intended to confer upon railroad companies the wise, just and reasonable power of shifting its debt into capital stock whenever it can be done, and if, in consequence of the exercise of that power in good faith and in the best interests of this company, speculators and rival lines have assailed us and cast a cloud upon our issues of stock, we feel ourselves equally justified in asking the Legislature to remove that cloud; and the summons to go to Albany has only anticipated by a few days our request for a hearing and for a remedy to allay the doubts and inquietudes of those who hold the stock of this company.

It only remains to state the wants of the company, to meet which the late issue of bonds was made. More detailed statements thereof are to be found in the reports of the General Superintendent herewith submitted:

STATEMENT.

17,000 tons of new iron, at \$75.....	\$1,275,000
8,000 tons of steel rails, at \$145....	1,160,000
50 locomotives, at \$15,000.....	750,000
300 box cars, at \$800.....	240,000
200 box cattle cars, at \$900.....	180,000
100 coal dumps, at \$625.....	62,500
200 coal dumps (for bituminous coal).....	125,000
Double track on Delaware Division	2,790,000
Passenger stations at Long Dock, Buffalo and Rochester.....	400,000
Storehouses for teas, sugar, grain, cotton, &c., at Lock Dock.....	1,000,000
Elevator at Long Dock.....	300,000
Elevator at Buffalo.....	150,000
New depot lands and river front at Newburg.....	225,000
Ferry slips at Twenty-third street...	25,000
New ferryboat for Twenty-third street service.....	75,000

Total.....\$8,757,500
All of which is respectfully submitted.

JOHN S. ELDRIDGE, President.
New York, March 9, 1867.

THE earnings of the Toledo, Wabash & Western Railway for February past were \$265,186.82. Increase \$64,342.33. It is stated the expenses of the road have been decreased \$28,000 per month, making in the aggregate gains for the month about \$86,000, or over \$1,000,000 per annum.

Pittsburg & Connellsville Railroad.

The following is a copy of the ordinance recently passed by both branches of the Baltimore City Council in aid of this road:

Whereas it is represented that the completion of the Pittsburg & Connellsville railroad, from Connellsville to Cumberland, will require four million dollars, which it is further represented can be obtained provided the city of Baltimore will consent to postpone the mortgage that she now holds in favor of those parties who may be willing to lend the said sum; and whereas the said city has already issued her bonds for one million of dollars in aid of the said Pittsburg & Connellsville Railroad Company, on which large arrears of interest have accumulated, the payment of which bonds, as well as of the interest, both accumulated and current, thereon, can best be secured by facilitating, in the way proposed, the obtaining of the loan for the four million dollars aforesaid and by funding the arrears of interest up to the time when it is probable the said railroad will be completed, so as to enable the said company to use the said four million for the purposes of construction exclusively, therefore:

SECTION 1. Be it enacted and ordained by the Mayor and City Council of Baltimore, That upon the acceptance by the Pittsburg & Connellsville Railroad Company of the provisions of this ordinance, Benjamin T. Newcomer, John W. Garrett and Robert T. Banks be, and they are hereby appointed trustees to receive from the Pittsburg & Connellsville Railroad Company a deed of all the property of said company, of every description, whether real or personal, to be held by them in trust to secure the payment of the bonds of said company, not exceeding four million dollars, and the interest thereon, said bonds to be issued on such terms, for such times and in such manner as may be agreed upon by the said company and the said trustees, with the express understanding that the use of the said bonds or the proceeds thereof shall be confined to the construction of the Pittsburg & Connellsville Railroad, between Connellsville and Cumberland exclusively.

SEC. 2. And be it further enacted, That upon the execution of the said deed of trust it shall have precedence and priority over a deed or mortgage from the Pittsburg & Connellsville Railroad Company to Charles M. Keyser and Robert Clinton Wright, dated August 4th, 1856, in trust to save the said city of Baltimore harmless, as specified in said deed, from all loss or damage consequent upon the issue by the said city of the bonds for one million dollars in said deed mentioned; so that the deed or trust authorized by this ordinance shall, to all intents and purposes, be as effective, as regards the city of Baltimore, as if it had been, in fact, executed and acknowledged and recorded before the deed of the 5th August 1856, aforesaid.

SEC. 3. And be it enacted and ordained, That the arrears of interest, together with the interest thereon, now due by the Pittsburg & Connellsville Railroad Company, as well as the interest and the interest thereon that may accrue and remain unpaid from this time to the 1st day of January, 1871, on the bonds of the city of Baltimore, issued in pursuance of an ordinance approved June 10th, 1856, entitled "a supplement to an ordinance entitled an ordinance guaranteeing the bonds of the Pittsburg & Connellsville Railroad Company, approved June 24th 1853," be and the same are hereby directed to be funded, and that upon the payment of the principal of the said bonds, with the interest hereby directed

as aforesaid, to be added to said principal, together with the interest that may fall due at the dates stipulated on the said bonds on both principal and funded arrears, from and after the 1st day of January, 1871, the said Pittsburgh & Connellsville Railroad Company shall be discharged from all obligations in connection with said bonds under the mortgage of August 4th, 1856, aforesaid.

SEC. 4. And be it enacted and ordained, That on the 1st of January, 1871, or sooner, the said company shall sooner declare its readiness to commence the payment of interest on the said bonds and funded arrears, the register of the city be directed to adjust the arrears of interest up to that time, when the Pittsburgh & Connellsville Railroad Company shall execute and deliver to the said register such acknowledgment or agreement as the counsellor of the said city shall approve, as to evidence of the amount on which, in addition the million dollars aforesaid, interest is to be regularly paid thereafter by the said company.

SEC. 5. And be it enacted and ordained, That the proceedings heretofore instituted against the Pittsburgh & Connellsville Railroad Company, on account of the interest hereby directed to be funded, be dismissed.

SEC. 6. And be it enacted and ordained, That this ordinance is upon the express condition that all taxes and assessments and other charges and expenses, together with all public dues now levied or which may hereafter be levied upon said debts due to the city of Baltimore, aforesaid, or on account of the mortgage or deed from said Pittsburgh & Connellsville Railroad Company to Charles M. Keyser and Robert C. Wright, or the bonds which said deed or mortgage was intended to secure and for or on account of the deed of trust mentioned in section first of this ordinance, and the debt intended thereby to be secured to the city of Baltimore, shall be repaid by the Pittsburgh & Connellsville Railroad Company to the city of Baltimore as the same shall become respectively due and demandable, and shall be deemed and taken to be secured to said city by the deed of trust mentioned in section first of this ordinance.

SEC. 7. And be it enacted and ordained, That this ordinance shall go into effect and operation when the commissioners of finance shall be satisfied that an amount of two millions of said bonds shall have been subscribed for, in good faith, by such parties as may in their judgment be deemed responsible; provided, however, that no sales of bonds shall be made at less than 90 cents in the dollar.

FAC-SIMILES OF OIL PAINTINGS.—M. Guereau, of Paris, has recently patented in France a simple and economical process whereby oil paintings may be perfectly imitated. The following is the manner in which he proceeds to secure this result. He first imprints in black the subject which he designs to reproduce, upon paper slightly coated with adhesive material. This impression being made the proof is thickly sized, then colored by hand with as much care as possible. The drawing thus colored is then submitted to a roughening process performed either by machinery or by hand, which gives it the appearance of the canvass upon which artists execute the subjects of their compositions or reproductions. The fac-simile obtained by the means indicated is placed upon a frame or panel intended to give it the requisite support and has then applied thereto several coatings of varnish, which give it consistency and an almost unlimited durability without any injury to the drawing. —*Le Genie Industriel.*

Iron and Steel Manufacture in France.

The French Institution of Civil Engineers has had a discussion on the importance which the employment of foreign iron minerals is every day assuming in France. All the furnaces of the southern group, which comprises Corsica, consume the minerals of the island of Elba, Algeria or Spain. The St. Louis Works, near Marseilles, set the example in 1855, and this example was followed by the blast furnaces of Bassege, Alais, Terrenoire, Givors, Chasse, Vienne and Creusot. The Alleverd blast furnaces alone do not consume foreign minerals, but obtain Alpine raw material. The result of the large imports made of the superior minerals of the Mediterranean basin has been a considerable improvement in the quality of the pig made with coke, and its successful competition with the charcoal-made pig of the Comte and the Berry. The number of charcoal-worked furnaces in activity has sensibly diminished. The southwestern group is of less importance as regards the qualities produced; the only great establishment of the district is either about to employ or does employ foreign minerals. The charcoal-worked furnaces of the Landes and Perigord districts, the number of which has diminished for some years past, supply their wants with the minerals of the Pyrenees and the Perigord, but their production is only a small part of the general make of France. For the rest, several of them employ rich manganeseiferous Spanish minerals from the Bidassoa and Somorostro. The blast furnaces of Montlucon and Commentry which form the group of the Centre, consume a certain quantity of foreign minerals. The Franche Comte (in the Eastern group) presents only two establishments worked with coke—Fraisans and Nans—and both of these consume minerals from Spain and the Island of Elba. The introduction of foreign minerals into this group, and the delivery of pig manufactured with these minerals into the southern group, has occasioned a considerable fall in the price of the fine pig of the Comte, and the extinction of several charcoal-worked furnaces. To the north of the Comte group, the blast furnaces of Dietrich & Co., in Alsace, consume the German minerals of Nassau and Siegen. —The Moselle group, in consequence of its position, has remained outside the general movement in the direction of foreign minerals; and the blast furnaces of the Meuse, the Meurthe, and the Haute-Marne, consume only local minerals, and produce pig of ordinary quality. The works of the Ardennes and the Moselle employ foreign minerals from Belgium and the Luxembourg; but these minerals are almost similar to the local descriptions, and have not the effect of improving the quality of the pig produced. Those works that have obtained some reputation in respect to an improvement in their pig owe the result to a better management of their apparatus. M. de Wendel alone imports into France manganeseiferous minerals from Nassau, following in this respect the example of the neighboring Prussian works of Burbach. African minerals, and especially those of Mokta-el-Hadid, are conveyed as far as Dunkirk, in order to supply the blast furnaces of the northern group. The works of the western group present little importance; at the same time, minerals imported from Biscay may be found in them—at least, in those near the sea. Upon the whole, the introduction of foreign minerals into France is acquiring every day more importance; at the same time, it is checked by special circumstances influencing

prices. Taking a general view of matters, it would appear that the foreign minerals of superior quality introduced into France have replaced the charcoal-made pig of the Comte district with pure coke-made pig, while in some cases Swedish Iron has also been replaced. —Superior coke-made pig, manufactured with mixtures of foreign minerals, have sensibly improved the position of the French steel-works. Instead of employing, as hitherto, for the manufacture of puddled steel or cast steel only very costly charcoal-made pig obtained from abroad, coke-made pig manufactured in the neighborhood is now used. The fabrication of Bessemer steel was impossible with almost the whole of the coke-made pig obtained from indigenous minerals, while now Bessemer steel can be made almost anywhere in France.

Our Gold and Silver Products.

J. ROSS BROWNE'S OFFICIAL REPORT ON THE MINERAL RESOURCES OF THE STATES AND TERRITORIES WEST OF THE ROCKY MOUNTAINS.

We take the following from J. Ross Browne's official report to the Secretary of the Treasury, a copy of which has been sent to Congress.

From the best information available, the following is a near approximation to our total gold and silver product for the year ending January 7, 1867:

California.....	\$25,000,000
Nevada.....	20,000,000
Montana.....	12,000,000
Idaho.....	6,500,000
Washington.....	1,000,000
Oregon.....	2,000,000
Colorado.....	2,500,000
New Mexico.....	500,000
Arizona.....	500,000
Add for bullion derived from unknown sources within the States and Territories, unaccounted for by assessors and express companies, &c.....	5,000,000

Total product in the United States, ...\$75,000,000

The bullion product of Washington is estimated by the Surveyor General at \$1,500,000. That of Oregon is estimated as high as \$2,500,000. Intelligent residents of Idaho and Montana represent that the figures given in the above estimate, so far as these Territories are concerned, are entirely too low, and might be doubled without exceeding the truth. The product of Idaho alone, for this year, is said to be from \$15,000,000 to \$18,000,000. That of Montana is estimated by the Surveyor General at \$20,000,000. Similar exceptions are taken to the estimates of Colorado, New Mexico and Arizona. As I have no grounds for accepting these statements beyond the assertion that most or the bullion is carried away in the pockets of the miners, I am inclined to rely upon the returns of the assessors, express companies, and official tables of export. Admitting that a fraction over seven per cent. may have escaped notice, although reasonable allowance is made for this in the estimate for \$70,000,000, and that a considerable sum may be derived from sources not enumerated, I feel confident the additional allowance of \$5,000,000, is sufficient to cover [the entire bullion product of the United States for the year 1867; thus making the aggregate product from all sources \$75,000,000, as stated in the report of the Secretary of the Treasury.

I have endeavored to obtain returns of the annual product of each State and Territory since 1848; but for the reasons already stated, and in the absence of any reliable statistics, it has been impossible to make the necessary

divisions with anything more than approximate accuracy. As nearly as I can judge, from the imperfect returns available, the following in round numbers is not far from the total product:

California.....	\$900,000,000
Nevada.....	90,000,000
Montana.....	65,000,000
Idaho.....	45,000,000
Washington.....	10,000,000
Oregon.....	20,000,000
Colorado.....	25,000,000
New Mexico and Arizona.....	5,000,000
In jewelry, plate, spoons, &c., and retained for circulation on Pacific Coast.....	45,000,000
Add for amount buried or concealed and amounts from unenumerated sources and of which no account may have been taken.....	50,000,000

Total..... 1,255,000,000

This statement requires explanation. Up to 1865 a considerable portion of the gold taken from California was not manifested. In 1849 yield was probably \$10,000,000; in 1850, \$35,000,000; in 1851, 46,000,000; in 1852, \$50,000,000; in 1853, \$60,000,000; and in 1854, \$53,000,000. The amount accounted for by manifest was not so great after the last date. In 1864, Nevada and Idaho commenced adding their treasures to the shipments, so that after that date a deduction for the amounts produced from these sources would be necessary, if the manifest alone were taken as a criterion in order to arrive at the product of California. An addition should be made for the amount retained for currency, estimated by some as high as \$45,000,000, but probably not exceeding \$35,000,000 or \$40,000,000; and for plate, jewelry, &c., of California gold \$2,000,000, and Nevada silver \$3,000,000. Incorporated in these shipments are the amounts received from Nevada, Idaho, Oregon, Arizona, Washington and British Columbia; but these cannot be deducted from the manifest of exports, according to the express returns, since the proportions are not accurately known of the amounts retained and shipped, derived from separate sources.

The general condition of the mining interests on the Pacific slope is encouraging. There have been fewer individual losses than during past years; and the yield of the mines has been comparatively steady and reliable. Fluctuations in mining stock have not been so great as usual; but those wild and injurious speculations which have impaired confidence in this great interest are gradually becoming narrowed down to individual operations, whose influence in the community is limited. Legitimate mining has been as prosperous as other pursuits; though it cannot be denied that there are uncertainties attached to this peculiar business, which render it hazardous, and requiring more than ordinary profits to make it remunerative, under the most favorable circumstances.

No uneasiness need be felt as to a decrease in the source of supply. After many years of travel over the mining regions, I feel justified in asserting that our mineral resources are practically without limit. Explorations made by competent parties during the last year in many parts of the mineral region hitherto unknown, demonstrate the fact that the area of mineral deposit is much larger than was ever before supposed. It is safe to assume that, of the claims already recorded in the settled parts of the country, and known to be valuable, not more than one in a hundred is being worked; and of those worked perhaps not more than one in fifty pays anything over expenses, owing to mismanagement, inefficient system of reducing the ores, want of capital, cost of transportation, and other causes susceptible of

remedy. In many districts of Nevada silver ores of less value than \$100 a ton can not be worked by mill process so as to pay expenses, and there are districts in Idaho and Montana where gold-bearing ores will not justify working unless they yield from \$40 to \$50 per ton. With such wealth of treasure lying dormant, it can not be doubted that by the increased facilities of transportation and access to the mines soon to be furnished by the Pacific Railroad and its proposed branches, and the experience in the treatment of ores, and the scientific knowledge to be acquired in a national school of mines, adapted to the necessities of the mining population, the yield must eventually increase.

Our Income from Immigration.

If any man has a little intelligence, and acquaintance with the every-day facts of our almost fabulous history, he need have but little faith to see how our national debt will be paid. It is not a question of grand schemes, of a colossal system of complicated taxation, of specie or paper payments, but only of peace and time. The legitimate development of our internal resources will if not interfered with, take care of the debt. That huge bugbear will melt away in the natural increase of our wealth. There is gold enough in our mountain vaults to pay off at once principal and interest, and what is better, there is coal enough to do the same thing, and iron ore also.

But independent of our own resources we have a stable outside income not often thought of, or at least, properly appreciated—immigration. The annual report of the Secretary of the Interior furnishes us with some data by the aid of which we may at least approximate to our estimate of the value of this contribution to our national wealth. The following table shows the immigration during the third quarter of 1867, the latest quarter of which full returns had been furnished by the Bureau of Statistics. It will repay the closest study:

DISTRICT.	Immigration.	NATIONALITY.			
		Great Britain.	German States.	Other countries of Europe.	All other countries.
New York.....	70,968	31,078	31,064	8,016	275
Boston & Charleston	3,028	1,853	94	167	1,974
Baltimore.....	2,987	314	2,660	11	25
San Francisco.....	5,925	567	12	4	1,312
Detroit.....	1,023	.....	.....	950	76
New Orleans.....	209	36	129	101	69
Philadelphia.....	420	342	19	55	4
Portland & Falmouth,	212	1	.....	.....	247
Texas.....	364	.....	364	.....	.....
Cuyahoga.....	19	.....	.....	.....	148
Oregon.....	18	12	2	6	10
Chicago.....	29	.....	23	.....	29
Providence.....	29	.....	.....	.....	16
Salem and Beverly..	16	.....	.....	.....	8
New Haven.....	2	.....	.....	.....	7
Savannah.....	6	6	.....	.....	9
Erle.....	9	.....	.....	.....	5
Genesee.....	5	.....	.....	.....	.....
Charleston.....	1	.....	.....	1	.....
Totals.....	81,343	34,324	34,307	9,311	4,314

footing up to the grand total of 82,558. The Secretary tells us, moreover, that immigration is steadily on the increase. Every immigrant has been estimated on an average to add just one thousand dollars annually to the productive wealth of our country. At this rate we receive yearly from Europe a contribution of over three hundred and thirty millions of dollars to the taxable wealth of the country.

These men for the first year, laborers most probably, may not directly pay any taxes themselves, but the result of their labor is taxed on other hands.

This steady stream of wealth we should do our utmost to encourage and swell. Let the honest, toiling millions of Europe know that a welcome warm and earnest awaits them. Their hearts are with us, let their homes be also. The report of the Commissioner of Agriculture asserts that little more than five per cent. of the area of the South is yet under cultivation. In that section alone there is room for a nation, and what a picture it presents to our unbounded and exhaustless capacity for development!—*Phila. Press.*

Important Railroad Extension.

The main line of the Chicago, Burlington and Quincy Railroad, as is well known, extends from Chicago to Quincy, with a cross feeder running from Peoria on the Illinois river, to Burlington on the Mississippi, the crossing of the two lines being at Galesburg, 53 miles west of this city. There is also a road owned and operated by the same corporation, running from Yates City on the Peoria branch (30 miles west of here) down through Fulton county, to Lewistown, a distance of 30 miles from Yates City. The distance from Galesburg to Chicago is 165 miles. It will be seen, therefore, that in going from Peoria to Chicago by the Chicago, Burlington and Quincy, we have to travel a distance of two hundred and eighteen miles, which frightens everybody from taking that route, even if they had the courage to face the other vexations of changing cars and laying over at Galesburg. Owing to the fact that the road has no direct route from here to Chicago, under its own control, has necessarily been compelled to discriminate against Peoria in the arrangement of all freight tariffs, and there has consequently grown up a bitter feeling here and at other points against the whole corporation.

We are happy to state that the proposed extension of this road is certain to be realized in the near future, and that on its completion, there will be an entire revulsion of the present universal popular sentiment, which, cropping out in the verdict of juries on the one side, and hostile freight tariff on the other, has been a subject of great annoyance and damage to all concerned. The proposed extension will cross the river here and run through Metamora, the county seat of Woodford county, and thence via Winona to Ottawa, and from Ottawa up the Fox River Valley to Aurora, and thence over the main line to Chicago. By reference to a sectional map of the State it will be seen that this road forms nearly an air line from here to Aurora. Going up the valley of the Ten Mile to get out of the Illinois river bottom, carries the road a little east to Metamora out of the direct line, but otherwise it is as straight as the crow flies.

The distances on the new route are as follows:

	Miles.
Peoria to Wenona.....	40
Wenona to Ottawa.....	30
Ottawa to Aurora.....	40
Aurora to Chicago.....	40

Making a total of 150 miles, and forming a shorter route by ten or fifteen miles than we now have to Chicago, and at the same time presenting the agreeable concomitant, "no change of cars."

That portion of the road between Ottawa and Wenona is already completed and operated a distance of seventeen miles. It is used to haul coal from the mines on the Vermillion to Wenona on the Illinois Central Road. Some grading has also been done between the Vermillion and Ottawa—the parties owning it desiring to reach the latter place with their coal also.

The Fox River Valley Railroad, of which Washington Bushnell (late State Senator) is President, has been organized for some time, the city of Ottawa having subscribed \$150,000 to its capital stock. Other localities on the Fox river have also subscribed considerable amounts to the road.


The Wenona & Ottawa Road, and also the Fox River Valley both stand ready to turn over their charters to the Chicago, Burlington & Quincy on condition that the latter agree to a perpetual rate (fair to all parties) that will enable the Wenona and Ottawa folks to reach the Northern part of the State with their coal *via* Aurora, and the road leading North from there through Geneva and Elgin. It is proper to state that a charter was obtained during the last session of the Legislature for the Peoria & Wenona Road—the remaining link.

We have not time at present to say anything further of this splendid route, than that it runs through the very richest part of the State, and one comparatively unknown to railway enterprise, and for that very reason all the more likely to be speedily opened up to that spirit of enterprise which, from its seat in Chicago, is searching out every good channel for adding to the business thrift of that young but mighty metropolis.—*Peoria Democrat*.

TAXABLE NET INCOME IN EIGHTEEN CITIES.—A Washington correspondent of a New York paper gives the subjoined table of the "net taxable income upon which Internal Revenue taxes were collected during 1865, 1866, and 1866-1867."

	1865-1866	1866-1867	Increase	Decrease.
N.Y. city...	\$117,304,163	\$130,941,536	\$13,637,373	
Philad'a...	64,376,643	53,410,330		\$10,966,284
Boston...	42,490,038	51,920,382	9,429,494	
Brooklyn...	34,954,899	33,670,349		1,284,550
Cincinnati...	27,592,116	34,079,836	6,487,510	
Pittsburg...	22,402,667	20,382,292		2,020,375
Chicago...	22,276,793	27,046,014	4,769,221	
Baltimore...	18,184,308	18,367,510	183.2	
Newark...	16,694,522	17,501,266	1,104,686	
St. Louis...	15,982,294	13,027,031		1,271,263
Providence...	15,542,431	17,057,400	4,509,949	
San Fran...	12,137,955	13,526,503	1,388,548	
Louisville...	9,536,754	9,912,751	375,997	
Albany...	9,046,154	13,753,324	4,707,170	
Bufile...	7,741,038	5,459,491		2,281,547
Cleveland...	6,899,385	9,073,569	2,174,204	
Detroit...	5,501,635	4,593,298		907,367
Milw'kee...	4,812,521	6,846,991	2,034,470	

[The decrease credited to Philadelphia, if the exhibit be correct, is doubtless in large part due to the depression in coal, iron, oil and other staples of Pennsylvania, in which Philadelphia has large investments. Indeed 1867 was distinguished, in contrast with its predecessor, for dullness in mining, manufactures and commerce. And as 1868 is Presidential canvass year; perhaps the country will have to wait patiently till 1869, for a return of revived trade and reanimated times.—*Ed. Reg.*]

 The largest pendulum in existence is that which regulates the new clock at St. George's Church, New York. The pendulum in question is 35 feet long, and vibrates in 3 seconds. The "bob" weighs 390 lbs, and is 4 feet long by 7 inches in diameter. The clock has only three wheels in the "going train."

The receipts of the Western Union Railroad Company for the week ending March 7:

	1868.	1867.	Inc.	Dec.
Freight.....	\$3,716.98	\$1,916.55	.....	\$1,799.57
Passengers ..	2,575.65	2,972.32	.....	396.67
Express and Tel.	350.00	320.00	30.00	.....
Mail.....	375.00	375.00	.....	.....
Totals.....	\$7,017.64	\$5,583.87	\$30.00	\$1,596.24
Increase.....				30.00

Total Decrease.....\$1,566.24

Receipts from January 1, to March 7:

1868.....	\$91,135.38
1867.....	75,329.22
Increase.....	\$18,806.16

The receipts of the Western Union Railroad Company for the week ending March 14:

	1868.	1867.	Inc.	Dec.
Freight....	\$1,822.54	\$4,451.80	.....	\$2,629.25
Passengers ..	1,421.25	3,000.00	.....	1,578.75
Express and Tel.	350.00	320.00	\$30.00	.....
Mail.....	375.00	375.00	.....	.....
Totals.....	\$3,968.79	\$8,146.80	\$30.00	\$4,204.01
Increase.....				30.00

Total Decrease.....\$4,178.01

Receipts from January 1, to March 14:

1868.....	\$98,104.17
1867.....	83,476.02
Increase.....	\$14,628.15

Road closed for repair of damage from high water, ice, &c.

UNION PACIFIC R. R.—The following gentlemen were yesterday March 11, elected, under the new act of Congress, a Board of Directors of the Union Pacific Road from Omaha west; Oliver Ames, H. C. McComb, John Duff, John J. Cisco, John J. Tracey, Sidney Drillon, T. G. Dexter, L. C. Durant, C. A. Lombard, H. S. Bushnell, Isaac Bardwell, E. Cook, W. H. Macy, B. E. Bates, John Bailey.

At a subsequent meeting of the Directors, Oliver Ames was re-elected President, T. C. Durant, Vice President, and John J. Cisco, Treasurer.

LEHIGH ORE.—We understand that the Glendon Iron Company have secured leases on a number of tracts of land in Williams Township and will at once develop it. From the preparations which are being made by the different iron companies in the Lehigh valley, it would seem as if the iron trade was looming up briskly.—*Northampton Democrat* March 5.

THE HOOSAC TUNNEL.—The superintendent of the work of the Hoosac tunnel has reported to the Massachusetts Legislature. He says that had a railway been laid for eight miles only up Deerfield River, to a vast lumber region at that point; the saving in cost of lumber and supplies thus made would have paid the whole cost of the road. The progress in boring last year with the Burleigh machine was highly satisfactory. With the aid of nitro-glycerine 150 feet a month may be accomplished. The work on the central shaft recently destroyed by fire has not been resumed, and the Chief Engineer says "more trouble is anticipated from water at the west end." On the first of last November the heading had reached a total of 4,482 feet; from the east opening, and 1,004 feet in the western shaft. On the whole, confidence is expressed in the future rapid progress of the tunnel, in spite of past obstacles and delays, and the Chief

Engineer, who has been inspecting the Mount Ceniz tunnel, asserts that the machinery employed on the Hoosac is superior to that used in the European work.

THE immense piling on the Trempealeau bottom for the Chicago & St. Paul Railroad, has been finished. It covers 10,170 feet of line containing nearly 4,000 piles, with an aggregate length of nearly 95,000 lineal feet. The piles have been driven from 16 to 18 feet in the ground and the track is to be built at an average height of 10 feet.—*West. R. R. Gazette*.

The sooner it is filled up with solid earth-work after the trains begin to run the better, both for the road and those passengers who have not got through tickets to "the other world."

At a meeting of the Directors of the Cedar Rapids & Burlington Railroad Company held on the 25th ult., it was:

Resolved. That the road be permanently located and put under contract from the Iowa river to the Linn county line *via* West Liberty and West branch, so soon as the right of way is secured, and the subscriptions are increased to the sum of \$125,000, including the amount already subscribed.

EARNINGS of the Northwestern and New York Central Railroads compared.

The following figures show the earnings and operating expenses of the New York Central and the Chicago & Northwestern Roads, the former for the year ending Sept. 30, 1867, and the latter for seven months ending Jan. 31, 1868:

	N. Y. Central,	Northwestern
	12 months.	7 months.
Earnings.....	\$13,979,576	\$7,926,538
Operating expenses..	10,653,692	4,623,319

The length of road operated is about equal. It is expected by the managers of the Northwestern that in the year 1868 its net earnings will surpass any road on the continent, except, perhaps, the Pennsylvania Central. In amount of tonnage the business appears moderate, as compared with the Eastern trunk roads; but at an early day its net profits promise to lead the list.

We would add that the Northwestern main line to Omaha is in excellent running order, and traffic has not been impeded by the late freshet which has caused temporary interruption to many other leading roads. All the divisions are now open to travel and trains in every direction are making their usual reliable time.—*West. R. R. Gazette*.

CANADIAN POSTAGE.—Under a new arrangement just concluded between the Post Office Department of the United States and of the Dominion of Canada, the single rate of postage on international letters will be reduced on and after the first day of April, 1868, from ten to six cents if prepaid in the office of mailing in either country, but if posted unpaid or insufficiently prepaid they will be subject to a postage charge of ten cents per single rate in the country of destination. The authorized weight of a single letter will be fifteen grammes by the metrical scale, and half an ounce in the Dominion of Canada. Postmasters will levy postage accordingly on and after the 1st of April, 1868.

PROPOSALS.

To Bridge Contractors.

ENGINEER'S OFFICE LOUISVILLE BRIDGE CO.,
Louisville, Ky., February 17, 1868.

PROPOSALS WILL BE RECEIVED BY the undersigned until March 10th, 1868, for the construction of a portion of the superstructure of the Ohio River Bridge at Louisville, consisting of (10) ten spans of Fink's Iron Suspension Truss of the following lengths, from centre to centre of piers: four spans of 149.6 feet, two spans of 180 feet, two spans of 210 feet, and two spans of 227 feet.

Plans and specifications can be seen at this office.

F. W. VAUGHAN,
Ass't Engineer.

ALBERT FINK,
Chief Engineer.
2-20,3

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Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
Baltimore.*

JNO.-L. WILSON, Master of Transportation.
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} Dec. '67.

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This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO. OF NO. FORMS.	PRICES.	SIZE NO. OF NO. FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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PUBLIC OFFICES, Etc., Etc.

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Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

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L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAUREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indian ap.
Aug. 2, 1866.]

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Railway, on Saturday Morning, by the 6:00 a.m. Lightning
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Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7 00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

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Passengers to the Eastern Cities will find the

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A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
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Provided for all Night Trains, and Smoking Cars for all
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Ample time is allowed, at all hours,
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Apply in Cincinnati at New Depot of Cincinnati, Hamilton
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CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front to East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:00 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at
1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:30 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:39 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

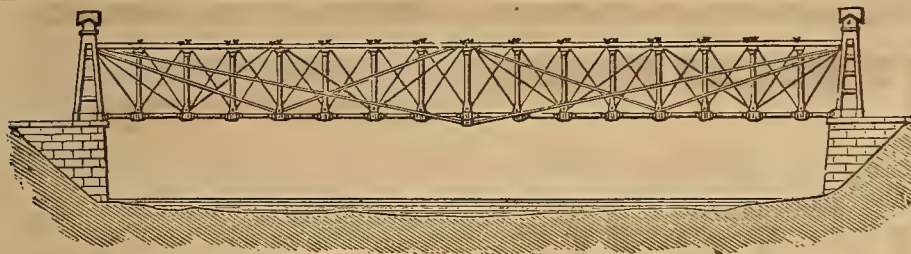
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

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Letter Box, 1392.

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MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and railroad work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

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THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

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H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
myll Pittsburg, Pa.

CUMBERLAND COUNTY

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NEAR

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WITH

Productive Wells all

around them.

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167 Walnut Street,

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MACHINERY OF EVERY DESCRIPTION

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LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for

Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities gives the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harpers Ferry.

This is the **ONLY ROUTE** by which passengers can procure *through tickets and through checks to WASHINGTON CITY.*

W. P. SMITH, *Master Transportation, Baltimore*
J. H. SULLIVAN, *Gen. Wes. Ag't, Bellaire, O.*
L. M. COLE, *Gen. Ticket Agent, Baltimore.*

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 09 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Arrive SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Office, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 10 am	2 30 am
Cairo and St. Louis Express.....	2 20 pm	4 08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express, Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10 10 am	8 35 am
Connorsville and Cambridge City.....	4 00 pm	9 15 am
Lawrenceburg.....	4 45 pm	2 20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

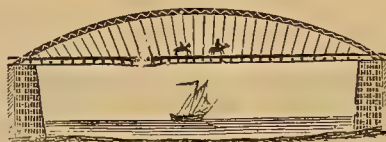
MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, Constantly on hand, painted, and ready for shipment, with instructions for applying them.

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Boston, Mass.

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Locomotive and Railroad

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Wilmington, Delaware

FREEDOM IRON COMPANY,

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LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

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JOHN A. WRIGHT, Sup't.

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COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—¼ to 24 inches in diameter, and branches, for same, &c.,

Gas Works Castings, etc., etc.

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STEPHEN MORRIS,

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CHAS. WHEELER

S. F. M. TASKER

Philadelphia, Wilmington & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at 4.15 A. M. and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, }
T. WRIGHTSON, } Editors

CINCINNATI:
THURSDAY, APRIL 2, 1868.

THE RAILROAD RECORD.
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1.00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago. Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Shall Congress Aid, or Stop the Pacific Railroads?—Debate.

On motion of Mr. HOWARD, of Mich. (Union), the bill relative to the central branch of the Union Pacific Railroad was taken up.

Mr. MORRILL, of Vt. (Union), opposed the bill. He said it was an anomalous thing that the United States should be called upon to build so many of these railroads which belonged not to the United States, but to gigantic corporations, controlling the finances and politics of the sections through which the roads are built. He claimed that the West was unduly represented on the Public Lands Committee. He was totally opposed to these subsidies, but if they must be given, he hoped they would be confined to a grant of lands.

Mr. HARLAN, of Iowa (Union), took the floor in support of the bill. Before his remarks were concluded the morning hour expired.

DEBATE IN CONGRESS.

When we first began to agitate for the Pacific Railroad, there was scarcely a man who would talk of it as a tangible thing. Whitney, who urged upon Congress the policy of appropriating a sufficient amount of the Public Lands, West of the Mississippi for this purpose, and which then comprehended much of the richest lands in Iowa, Minnesota, and Dacotah, could not get half a dozen members of Congress to listen to him, and finally gave it up, and retired from the controversy. He said, what was true, that if the lands could then be (in the proportion they have since appropriated them), they would build the road; but if Congress waited till the good lands were exhausted on the Missouri river, the land grants must be unavailable till the road was made. They would not furnish capital, to make the road, as it advanced. This turned out literally true. Congress made no provision for the road for many years. The fertile lands West of the Mississippi were taken up; the Homestead Law was passed; and nothing remained to make a Pacific Road, by a land grant, but the inferior lands on the slopes of the mountains, which cannot be put in market till they have been made valuable by the road itself. In the meantime, the Texas Grant, which covered the whole distance from the Sabine to the Colorado, made it possible, by the Texas Grant, to construct a road on the Southern line. That grant, however, was only available on certain conditions; and those conditions could not be fulfilled by the parties who undertook it. In the meantime, however, the subject got fairly before the public mind, and the prospect of constructing a road, which would be substantially one from New Orleans to the Gulf of California, aroused at last the attention of the Northern people and of Congress. Then this subject fairly came before Congress; but, it was not till 1862, when the land was covered with the shouts of war, that the Government deliberately took up, and passed the Act, which is the basis of the present Pacific operations. All that was done by that

act does not and will not cost the Government a dollar,—not one dollar. The advance so far to the Union Pacific is eight millions in bonds, and the report of the Company shows, that the services rendered the Government by the Company, and which it was bound to perform by the law, were *more than equal to the interest on the bonds*. But, far more than this. It is proved, that the saving to the Government in the transportation of its men and provisions amounted to millions. In point of actual fact, therefore, the advances to the Pacific Road has not cost one dollar, nor will they. The lands are not available till the road is made, and then they will make the alternate sections of the Government worth far more than the whole were without the road.

Mr. MORRILL utters the same cry which demagogues did thirty years ago against the United States Bank. We had a grand, and then sound National Bank, useful to the country, when demagogues cried out, "gigantic corporations!" And after a while the Bank was destroyed, and perhaps the same wise proceeding may stop the Pacific Road; for the "Central Pacific" has, if we recollect, no sufficient grant.

Mr. Morrill is also mistaken as to their "controlling politics," in the sections where they are made. They are made in regions where there are no politics to control. The roads through Missouri and Iowa have no Government grants, and it will hardly be contended that there is much politics up the North and South Platte, where the Red Indian makes war his politics. But whose fault was it, that these roads are to be made by corporations? Was not the Government besought on every side, to make these roads as Government Works? And was the reply? That if these roads were made by the Government, they would become objects of party contention and be made political machines. So the Government deliberately preferred to have these roads made by corporations. And now a grave Senator from the prudent little State of Vermont, cries out gigantic corporations!

Now, the question simply is, whether these roads shall stop, or go on? The Union Pacific under the present Act will probably be able to reach Great Salt Lake; but all the others stop. Does Congress mean that? A single fact or idea ought to determine this question decisively. How, but by these roads, can you ever prevent Indian wars, or advance civilization over that country? Repeated trials prove that the army is utterly incompetent to quell the Indians. They make peace in the autumn and war in the spring, and so they will continue to do, in spite of Congress and the army, *till the line of settlements is advanced among them*. And how are you to advance the line of settlements? Not by the army. You might as well attempt to do it by the navy navigating the Missouri, and better;

for that does *carry forward* the means of communication. This is the very thing to be done. It is by *carrying forward the line of communication*, that you are able to carry forward the line of settlements. That is what we ought to do as fast as possible, if we mean to make the wilderness a civilized State. In that region, through and beyond the Rocky Mountains, the railroad is the only line of communication which is available against Indians. But we suppose this to be known and admitted among the sensible men in Congress; and the only question to be, or ought to be, *how* it can be done. We must here reiterate what we have often said, that the Northern and New Mexico routes *ought* to be considered together and aided together, with the Central, in any scheme for this purpose. If, as Mr. Morrill supposes, there is danger from gigantic corporations, then the plan we recently proposed will disarm it altogether. This is for the Government to buy the 1st mortgage bonds of the Company with greenbacks, and thus in fact control the roads, and provide a redemption for the notes. This is practical, easy, and safe for all parties. As the matter now stands, the Government is likely to be in the condition of the man who puts his shoulder to the wheel, and then takes it away, leaving the wheel to roll down hill. We say again, let the Government finish what it has begun, and carry forward the line of settlements by railroads to San Francisco, to Puget's Sound, and to the Colorado of the South.

Railroad Bridges over the Ohio.

We notice a Bill before the Legislature of Ohio, authorizing the building of a Railroad Bridge from Newport to Cincinnati. A charter had been granted by the Kentucky Legislature several months before. We also notice that the Cincinnati Council, in consequence of a remonstrance on the part of the steamboat men, have taken up the subject, and passed some resolutions, the purport of which is, we believe, that the bridge should be built 100 feet above low water mark. In the mean time, a meeting of the Bridge Stockholders at Newport have organized, making Mr. E. W. Woodward, of the Little Miami Railroad, President. The names of the Directors show, that the Company is to build the bridge in the interest of the Little Miami Railroad Company. Indeed, we may here say, that the main object of the enterprise is to connect the railroads on the other side of the Ohio, with the Little Miami and the Eastern roads. There is, therefore, vast interests involved in this question. The first immediate object will be to connect the Louisville Railroad (constructed by the Louisville and Frankfort Company,) with the Little Miami, and thus make a *continuous, and the shortest* railroad connection between Louisville and Memphis,

and Philadelphia and New York. This alone is of great importance. But, if we look at it in connection with the direct Southern road, if such be ever made, it assumes immense magnitude. If we have the Louisville and Memphis, and the direct Southern road arising on the opposite banks of the Ohio, and no means of making a direct connection either with the city or Eastern roads, half their value to this city will be taken away. A break in a railroad connection, however short, has been found by long experience to be a heavy burden upon commerce. The present policy of railroads and of railroad cities, and of capitalists is to make long lines, *without any break* of any kind. But we can see at once, that if the Ohio River cannot be crossed by a convenient railroad bridge, it will be a break of the worst kind. Hence, it becomes an object of prime importance to remove this break. It is only within a half dozen years, we could hope to do this effectually. The opposition of the steamboat interest to bridges over the Ohio and Mississippi, was violent and unreasonable to the last degree. One would have thought, from the opposition to them, that a proposition to build a bridge over the Ohio or the Mississippi, was a proposition to stop their running to the ocean, or scoop out their waters! The first opposition took a shape which seemed insuperable. It was that charters from the States could not give power to obstruct (as it was called,) the great navigable streams running between two States, such as the Ohio between the State of Ohio and Virginia or Kentucky; and between Illinois and Missouri. But, this was met by Acts of Congress, declaring the routes over the rivers where bridges were needed, post routes. But, this was met by litigation, aiming to show that such laws were unconstitutional. Finally, the Supreme Court, in the Wheeling Bridge decided the matter in favor of the Bridge Companies. This great case determined one point forever, that by virtue of an act of Congress declaring the route a post route (if in no other way), bridges *could* be constitutionally built over the Ohio and the Mississippi. Henceforward the steamboat interest had to admit the legality of the bridges, and since then, the erection of the great Suspension Bridge at Cincinnati has proved that the largest structures of this kind is entirely *practicable*, and that without the slightest obstruction to navigation. Now the opposition is confined to making the details of the bridge difficult, if not almost impossible, by *local* legislation. For example, we see it insisted upon, that the bridge shall have a draw, at least 500 feet span? What for? What is gained by it? A Pittsburg man in the *Cincinnati Gazette* insists upon a 500 feet span, and says:

A wrought iron truss bridge, of 500 feet span, is not an impracticability, although I believe a suspension bridge for railroad pur-

poses to be an absurdity in the present instance. I can find you, Messrs. Editors, in the "Iron city" (and I know whereof I speak) responsible parties, who will guarantee to construct such a span. Let the money be forthcoming, and you will find engineers and bridge-builders ready and competent to build you such a railroad structure as will at once be an ornament to the city and a credit to its owners and projectors.

What if you can? What is the benefit of it? Cincinnati mechanics can build the bridge and the draw, or anything of the kind, equal to anything of the sort in the world, but what is the use of a 500 feet span, more than a 300 one? Can anybody tell? A boat which cannot go safely through a 300 feet channel will hardly go through any; simply because the pilot or captain is incompetent to his business. The reader knows that 300 feet is five times the breadth of the largest steamboat. Consequently, it is evident that nothing but the grossest neglect could occasion any difficulty in the passage of a steamboat. But, here is another question. If you want a 500 feet draw, why do you want the bridge 100 feet high? Don't the intelligent public know, that what is called "high water" don't average more than ten days in a year? If the bridge is to be made 100 feet high, the draw is not needed over ten days in a year. Why then is this remarkable draw of 500 feet asked when it is wanted only for ten days? If the draw is to be that breadth, why make the bridge more than eighty feet above low water? For we undertake to say, that the Ohio at Cincinnati is not eighty feet at low water a month in a year. It seems to us, that these obstacles and objections are not made, from any belief that a bridge over the Ohio with a moderate draw would be any serious injury to navigation, but rather with a general and instinctive dislike, on the part of the river interests to railroads, and a suspicion rather than a conviction, that in some way the bridge would be injurious to their interests. We think differently. Except where railroads have run in direct competition with steamboats; they have done no injury to the river trade. Nevertheless, the suspicion exists. And the real question now is, whether this suspicion shall be allowed to arrest all railroad progress across the rivers, by throwing unreasonable obstacles in the way of bridges? General principles *ought* to govern the case, and there is no doubt what those general principles are. It is perfectly certain that great railroads must traverse the valleys of the West, and perfectly certain, that to obstruct them for want of crossing the rivers, is a vast, an almost irreparable injury to commerce. There must, therefore, be railroad bridges over the Ohio and the Mississippi. Three or four great bridges are already built. But, more than that; there must be *railroad bridges*. The Union Pacific is about to build a great railroad bridge at Omaha. There is

an immense bridge building at St. Louis. But, there must be hundreds of these bridges. When the Great Central road to connect us with Norfolk and Richmond comes along, must it stop at the Ohio River, for want of a bridge? Must the direct Southern Road stop at Cincinnati for want of a bridge? Soon we shall have *fifty millions of people in the Valley of the Ohio*, and we speak within bounds when we say, there will be fifty railroads which will need bridges; are these all to be stopped at the Ohio? Oh, no! says some one, we only want them to be made reasonably, so as not to inconvenience steamboats. Very well; but if you insist on such almost impossible details as bridges 100 feet high, and draws 500 feet broad, you *practically* prevent the erection of such bridges as railroads can make, or use to advantage. Will society allow that? Certainly not. But society is sometimes long in coming to understand the matter. In the meantime, great injury may be done by the delay of great enterprises. We sincerely trust no insuperable difficulties may be put in the way of a railroad bridge from Newport to Cincinnati. It will only be delay; but delay, which may be very injurious to the City of Cincinnati and to its Railroad interests.

Plan for the Construction OF THE SOUTHERN RAILROAD.

The necessity of a railway to connect the two great Northern and Southern systems of roads in the West, to cross the Ohio river at Cincinnati, and to penetrate down through Kentucky and Tennessee until it intersects with several roads in the South, already constructed or being constructed, and thereby bring the two systems into closer and more intimate business relations, and the two regions of the country—the great North-west and the South—into healthful and natural intercourse, has been so long before the country, and has been so thoroughly discussed, that its further elaboration at this time is deemed needless.

Through many years of the past the ablest men in all the sections likely to be affected by this work have labored for it; they have spoken and they have written in its advocacy, and plan after plan has been devised and submitted for its accomplishment, by States, counties, cities, conventions, committees, and individual citizens, until the entire population of the regions interested have become restive, and chafe under the repeated failures of a project so important and so manifestly necessary.

The reasons of the earlier failures in this movement are obvious to those acquainted with the geography and topography of the country over which it was proposed that this road should pass. A chasm of rugged and undeveloped country lies in the way, of some eighty miles in extent, which had to be bridged over before the two sections could join hands, and to provide the means to ac-

complish this has always been the difficulty in the way of solving this problem.

Two sections of this connecting line of road between the North and the South, and running in the right direction, to-wit: the Covington and Lexington (or Kentucky Central as now called), and the Lexington and Danville, were commenced many years ago; the first was completed after encountering much embarrassment; on the other there was expended some twelve hundred thousand dollars, but owing to the restricted source from whence the means for its prosecution were to be derived it had to succumb, and has lain for many years in a state of suspended animation.

The mistake in the construction of these works, which modern railway experience (reduced now almost to a science) has developed, is, that they are in detached sections, each dependent upon itself for the means of its prosecution, instead of a continuous connected through line, under one ownership and management, which would have assured large remuneration when the whole should be completed.

A consolidation of even these two sections of road, if made years ago, might have saved both from much embarrassment, secured the completion of the latter, and formed the basis for extension of the road South from Danville; but before this was done difficulties had overtaken both, which rendered the union impossible.

The people of the present day are puzzled to know why it is that this great line of railway is not now prosecuted to completion, when the country is so much abler to furnish the means, and when its necessity is so much more apparent. It may be found in the fact that the difficulties begotten by this early mistake, have resulted in embarrassments so fixed and chronic, that it is found next to impossible to eradicate them. The property of both companies have long since changed owners; the Kentucky Central, through the agency of the law, into the hands of private individuals, with a doubt hanging over it as to whether it carried with it the franchise. The largest interest in this property at this time belongs to an estate which is in the hands of fiduciary agents and trustees, and to some extent under the control of the courts; while the title of the Lexington and Danville also passed by judicial sale on the mortgage bonds, obliging the purchasers to secure another charter from the Legislature to protect their property and to preserve a continuous succession, but the owners were unable or unwilling to adventure upon the construction of so formidable work as this road South from Lexington would be, unless they were joined by the other company, and were otherwise aided by outside parties.

The Legislature of Kentucky, in view of the importance of this road to the country, at its session of 1866-67, granted to this company (the Lexington and Danville) most liberal modifications of its charter, enabling it to extend the road to the Southern line of the State, to construct branches, and to enter into any form of arrangement with the Kentucky Central, or other roads, which should be found necessary in order to secure a connected through line to intersect with the roads in the South which point in this direction.

What is the question now before us? It is not why has this road not been built; although an inquiry in that direction may guide us to the true one. We know that with all its merits, and after years of struggle and the

failure of many plans, that it is not built, which might be answer enough, but the further reason may be given that the present owners of the Lexington and Danville road can not or will not finish their own, much less construct this great line through to the South, and why? There is a cogent and very simple answer to this question: *There is not merit enough in this isolated section to justify the outlay necessary for its completion!* The present owners can not or will not furnish it, and it will not draw to itself the needed means from outside capitalists.

It is patent to all that a road from Lexington to Danville, thirty-six miles in length, with a bridge structure on the line, the cost of which will not fall short of half a million dollars will not pay. It is true that contributions have been offered by way of subsidy, as far as the hope of incidental benefits warrant, but not to an extent and in a way to draw to it the capital necessary to finish the work; therefore the Lexington and Danville company can not build this road.

The Kentucky Central can not build it owing to this doubt concerning the charter, but principally to the fact that the Lexington and Danville road interrenes, and thus prevents the construction of a continuous line to the South. Capital must have the protection of undoubted charters, and the Lexington and Danville company has the only one under which this road can be built; and, beside all this, the tenure by which the property of the Kentucky Central is held, estops it from engaging in such a work. As heretofore remarked, the main interests in that road belong to minors, and are managed by trustees who are without power to act in the case, unless so authorized by the courts.

They cannot consolidate with the Lexington and Danville for the same reason.

Will or can outside parties construct this work? At present they can only do this by using the Lexington and Danville charter. Will they thus engage with the full knowledge that the largest portion of the resulting benefits will inure to the Kentucky Central, that being the section lying nearest the great *entrepot*, Cincinnati, and the starting point and receptacle of all the through traffic of the road, and from all the feeders, South and North? Some may say that another charter may be had. For what purpose? The entire distance is already covered by a charter and partly built; who will venture his means in a parallel contesting line, when one is hardly yet remunerative?

Of all the developments in modern railway experience none are found to be more interesting to the capitalist, and none receives a larger share of his critical examination than the causes which lead to success or failure in railway enterprises. His first inquiry is as to what is the intrinsic value of the property as ascertained by the present net yield? His second, what is the prospective increase by extension or consolidation with other lines? Then comes the inquiry as to the causes of failure (for there are failures as well as successes attending upon railroads) and from a survey of the whole field his conclusions are drawn.

The first great fact which modern railway experience develops is, that short, detached roads, as a rule, are not successes, and hence are avoided by capitalists; the second is, that stem lines of road with controlling initiative points—as a great city, for instance—become more attractive to capital as they are pushed out, and approach completed connections

with other lines or systems; and the radiations under the sustaining power of the stem lose the doubtful and unsteady character of isolated roads, as they are absorbed or approach that position; they become adjuncts or helpers of the larger interest, and hence receive its protection in return.

The course and tendency of all the leading roads of the country, especially of the great East and West lines sustain this theory and policy. Witness at this very moment the course of consolidation and absorption now taking place all over the country, whereby the weaker roads, which before had suffered from doubtful credit, arising from uncertain connections, are lifted out of their crippled condition by these strong controlling lines, and placed in one of security, with generally a large intrinsic enhancement in the value of their property.

The railway interests of this country have grown to vast proportions and attract to their supervision and management the highest class of intellect; tact, sagacity, and far-sightedness, are the distinguishing characteristics, and the present tendency to consolidations and extension, which is the result of their matured and aggregate judgment, together with the increase in the value of the property which usually follows, vindicates their claim to superior wisdom.

Thus is answered, it is believed, the inquiry why this road has not been built, and brings us back to that other, and the main question, *How can it be built?*

For answer to this it may be stated that it can be, and this too, it is hoped, with the means within our reach and now available.

The first point which demands attention in the present attitude of this subject, is a plan, a well digested practicable working scheme, which will unravel the involved and complicated condition into which, through many years of vain endeavors, it has been forced; and the initiative in that plan must be the ownership and control of the Kentucky Central and the Lexington and Danville roads, together with the charter of the latter, by a new, live company yet to be formed.

The next great question is, can this property be purchased from the present proprietors for "its true value in money?" This feature is important, for the appeal has to be made, it will be remembered, for the means with which to purchase, principally to disengaged capital, which looks only to income, the purchaser must be assured a par stock—one that will command its face in money in the fair open market.

Under the desire now felt for the extension of this road, a stock so offered with guarantees by the earnings of the road of immediate remunerative income, will, it is believed, find takers. I have held long and patient interviews with the present owners and managers of these roads and they exhibit a large and liberal spirit; they appreciate the embarrassments which beset this enterprise, and are earnest in their desires to meet and overcome them. They are not in a condition to prosecute this work themselves, and are therefore prepared, they say, to meet any reasonable sacrifice in order to enable others to do it.

As a result of these conferences, the Kentucky Central submits the following propositions: They will sell their entire interest in the line of road from Cincinnati to Lexington, including all the appointments, equipments, and property of every kind, now belonging to said company, for the sum of \$3,330,000; the same to be paid for in the following manner, to-wit: The purchaser to

assume the present outstanding bonded indebtedness of the company, amounting to \$1,468,000, and payable:

First mort.....	\$132,000 00	in the year 1872
Second " \$444,000 00	1,000,000 00	" " 1882
150,000 00		
Third "	236,000 00	" " 1882
	100,000 00 cov. by 2d mort	
	payable.....	1865
	\$1,468,000 00	

Which sum deducted from \$3,330,000 00 leaves \$1,862,000 00, of which the company will receive in payment the seven per cent. bonds of the new company, payable in twenty, twenty-five, or thirty years after date, at the option of the purchasers, \$1,032,000, the mortgage to secure which to cover only the property conveyed, which leaves \$830,000 of cash to be raised in order to invest the new company with the title of the Kentucky Central road, with no incumbrances but those above specified, and the complication explained below ninety-nine miles long.

The cost of this road, as shown by their books, before it passed to the present holders by judicial sale in 1859, was \$4,505,043 10, as follows:

Stock.....	\$1,392,400 00
Bonds.....	2,930,000 00
Floating debt....	182,043 00—\$4,505,043 10

The sale embraced only the finished road and equipment between Covington and Paris, eighty miles long, and half the road bed between Paris and Lexington, nineteen miles, the other half belonging to the Maysville and Lexington company. The complication originated as follows: both companies having charters, and this line suiting both, it was thought best to build the section between Paris and Lexington out of joint means for a double track. The track was thus cut out and the superstructure for one laid down by the Maysville company; but subsequent to this the latter company was overtaken by embarrassments so serious as to oblige it to suspend operations. An arrangement was then entered into between them that the Covington and Lexington company should use this nineteen miles of track and divide the gross earnings for its use, they paying running expenses and furnishing the rolling stock, the Maysville company keeping up the track. In the mean time, but subsequent to the purchase at the judicial sale in 1859, the present holders of the Covington and Lexington gradually absorbed the stock of the Maysville company by purchase until it is now owner of nine thousand shares out of eleven thousand five hundred, the original issue, or within a fraction of this amount, and thereby comes into the control of that work by the selection of its managers and officers. Thus it stands at the present time; the Covington and Lexington company owning a little less than four-fifths of the Maysville and Lexington company's property, and the other stockholders a little more than one-fifth. This eleven thousand five hundred shares of stock represents nineteen miles of superstructure and the half of nineteen miles of double track road bed, worth, at a low estimate, at least \$650,000, the proportion of which, belonging to the Covington and Lexington Company, is \$475,000.

The purchase at the judicial sale in 1859 gave the present owners a road bed and track far from first-class; it gave them inadequate depot accommodations and workshops, and insignificant outfit of rolling stock at that time, as compared with the present large equipment.

The report from which most of these facts and figures are taken was published in 1858, a period, be it known, when the directory of that company was struggling to relieve themselves from the personal liability they were under for the company by the application of the receipts, as far as it could be done, to the liquidation of debts for which they were responsible, and of course in total disregard of the condition of the road.

It is difficult to determine what proportion of the expenditures made by the new company since the property came into their hands in 1859, is chargeable to construction and what to repairs—the books of the company show a charge of \$907,000 to construction within the past five years—but it is believed that \$300,000 is far below the actual increase of the value of the property within that time, as a few items that are visible in Covington make more than that sum, to-wit:

Enlargement and enhancement of value in depot grounds.....	\$100,000 00
New round-house.....	60,000 00
Five new locomotives.....	85,000 00
Seventy freight and four passenger cars.....	60,000 00

Total.....\$303,000 00

Add these sums, \$475,000 00 to \$303,000 00 to \$4,505,043 10, makes \$5,285,043 10 as the actual cost of the Kentucky Central road, all of which is embraced in the tender to sell at \$3,330,000 00, including the nine thousand shares of the stock of the Maysville company.

The owners of the Lexington and Danville road, the name of which is changed by the amended charter to the Cincinnati, Lexington and East Tennessee R. R. Co., propose to sell their entire line, free of encumbrance, excepting outstanding bonds which they do not control amounting to \$4,255 40, or about 1-30th from Lexington to Danville, thirty-six miles in length, which embraces thirteen miles of finished road from Lexington to Nicholasville, ten miles graded ready for the superstructure to the Kentucky river, the unfinished bridge structure over the Kentucky river, on which there has been expended already \$98,107 78, and the work on the road bed South of that point, including the charter, for the sum of \$450,000 00. The expenditure already made on this work is rising \$1,200,000 00; the items of which are derived from a report made by General Leslie Combs, the President, immediately before the judicial sale of the road in 1858. The precise cost at that time was \$1,143,065 78, to which are to be added rights of way, land purchases, surveys, etc., since paid for by the present company, making the actual cost at this time rising \$1,200,000 00. The company proposes to take in payment the stock of the new company at par, or \$250,000 in 7 per cent bonds, and \$200,000 in stock, at the option of the seller.

These sums, to-wit: \$8,285,043 10 for the Kentucky Central, and \$1,200,000 00 for the Lexington and Danville, make \$6,485,043 10, and represent the present cost of these two lines of road. The next point for inquiry is, what is their present value, or rather what would it cost to construct similar works at this time?

To ascertain this with certainty, the services of Thomas D. Lovett, Esq. a gentleman eminent in his profession, who for twenty years and upward has been engaged in superintending constructions, and who is at this time the Chief Engineer of the Ohio & Mis

mississippi road, were secured. He passed over the entire line, from Covington to the Kentucky River, and made a critical examination of the property. His report, fixes the present value of the Kentucky Central with its equipment, at \$3,727,070 00, and of the Lexington & Danville at \$871,370 00, making an aggregate of \$4,598,440 00.

Thus it is shown that these two roads, partially finished and partially equipped at first, have cost originally rising \$5,400,000, that their present value, or rather the sum that it would cost to construct similar works at this time, is \$1,598,440, as ascertained by Mr. Lovett, and that the whole may now be purchased at a cost of \$3,780,000; \$2,500,000 of which to be placed on loan at seven per cent. and the payment long deferred, thus saving largely in the usual and legitimate expenses of negotiations, commissions, discounts, etc.

The next inquiry is as to income. The Lexington & Danville pays nothing. The present and preceding receipts, except for a short period during the war, being barely sufficient to keep up repairs and to pay running expenses. The earnings of the Kentucky Central make a much more satisfactory exhibit; From \$87,000 the receipts of 1854 (when the road was running but a short distance it is true) to 1858, the income rose to \$437,000 per annum, and during the past year they largely exceed \$600,000 (the exact sum is not attainable until the annual exhibit is prepared); but throw away the excess and take \$600,000 as the basis of the calculation, and allow stockholders and bondholders the same rate of interest on the entire purchase \$3,780,000 at seven per cent. it makes \$264,600, which deduct from \$600,000, the gross earnings, it leaves \$335,400 for running expenses, taxes and repairs, or upward of fifty-five per cent. of receipts, with no income from the Lexington & Danville road.

It will be borne in mind that this road is in thorough repair, and amply equipped. Within the past two years extensive protection walls have been laid up to secure the track against land slides, the iron has been rerolled and relaid, the track newly ballasted, the bridges nearly all rebuilt, new ties, the rolling stock refitted and largely increased, the workshops newly furnished, and the depot grounds materially extended. Now a road in this condition, with seven per cent. per annum reasonably certain for income, and a promise of a large percentage of increase in the future by its extension, (this increase be it remembered inuring exclusively to the stockholders,) with a certainty that all the holders of these securities will at once come into the receipt of their dividends and their interest, because it is the product of a running, earning road, whose receipts have been tested by years of experience, is it unreasonable to expect that a stock thus based should be rated at par and command its face in money in the fair open market.

There is one other aspect in which this subject deserves to be considered. This road to the South is a necessity, it is claimed, but can not be built by reason of these two sections (the Kentucky Central and the Lexington & Danville) being in the way—refusing to consolidate, or unite to form a connected through line. Now if the ownership of these two sections can be secured for a sum one-fifth less than their actual cost to construct would be at this time, and on the terms herein indicated, do they form such an impediment? On the contrary, do they not offer positive inducement and aid in the prosecution of the work, to the extent of the abate-

ment which they propose to make from the true value of the property? and does it not become the duty and the interest of those desiring the success of this undertaking to accept such an offer promptly?

So much for the purchase, now for the extension South, which is the main question and the one most difficult to deal with.

Since 1835, when this project of a road to Charleston first took shape, the country has been repeatedly reconnoitered for a line. During the year 1863, William A. Gunn, Esq., a distinguished engineer of Lexington, Kentucky, by command of General Burnside, then in command of the Department of the Cumberland, reconnoitered the entire region, and with five corps of engineers made a survey and estimate of the line for military purposes; subsequently, the Government having declined to enter upon the work of construction, he made another for the Lexington and Danville company. These surveys and estimates were gotten up at a cost rising \$50,000, and are of the most thorough character. I have obtained a condensed synopsis of them from Mr. Gunn, together with a copy of his official map of the line, which I have had reduced by photography, and both are appended hereto, the report marked C, to which attention is invited, as embodying the most authentic information extant in relation to this line, its cost, connections, curves, grades, etc., and making any further reference to this branch of the subject unnecessary on my part.

Mr. Gunn reports the length of the line yet to be constructed from Nicholasville to the southern boundary of the State, as one hundred and thirteen miles, or from the Kentucky River, the point to which the road is graded, as one hundred and three miles. The work is properly divisible into three sections, and should be built consecutively, and he has so divided them. The first section, twenty-eight miles long, extends to South Danville, on the Lebanon branch of the Louisville & Nashville road, now completed to Crab Orchard, and under contract to London. This is the most eligible point for a connection with Nashville by a road running on the south side of the Cumberland River for some distance above that city, and which has already been surveyed. The second section reaches to the Cumberland River at or near Burnside Point, immediately above the South Fork of that stream, and is forty-eight miles long. The third section is thirty-seven miles in length to the State line.

This disposed of, let us return and assume that the stock is taken and the purchase made of the Kentucky Central and the Lexington and Danville roads, what is the result? Why, the new organization becomes master of the situation. It has been always known by the well informed, that a union of these roads was a necessary condition precedent to any movement looking to an extension South, and the efforts to bring about that union have been continuous and persistent, but without avail. There they have stood torpid and lifeless for a dozen years and more, making every effort to construct this road a failure—a positive obstacle standing in the way. This purchase removes these obstacles; it renovates and vitalizes, it strikes the shackles off, and liberates them for intelligent manipulation. It does more; it converts them into strong and vigorous helpers in the movement.

But it must not be expected that the new corporators, with an investment already remunerative, will prosecute this work Southward without outside aid. They are in a position to await movements looking to co-op-

eration. They may say we have purchased this stock on terms which are satisfactory as an investment, but the section of road beyond is not likely of itself to be remunerative, owing to the expensive bridge structure on the line; make a contribution which will compensate and preserve our stock at the par level, and we will authorize the sale of as much additional stock as will assure the completion of the section terminating at the Lebanon branch. It is presumed that a contribution of \$600,000 will assure this result. With this aid and by the sale of \$650,000 or \$700,000 of additional stock at par—both to be paid as the work advances—it is hoped that this additional section of the road may be completed and the value of the stock preserved at par. Every body knows that a premium stock, however small that premium is, every body seeks; it has not to seek capital, capital rushes to it. Should this, however, not be the case, should this stock not find takers, the resource then is to increase the bonus until it does; this feature should be added, however, to allow contributors to this subsidy a prior option of the stock, and if excess is offered to scale the amount down to each in just proportions.

This project for a bonus has been entertained for some time. Two years ago a \$1,000,000, or a \$1,500,000 were raised and offered to any parties who would build this road; but the offer was coupled with conditions which were found to be impracticable. In the first place, it did not define to what road or what section of a road the subsidy should be given—it was thought necessary at that time to prosecute this road through Tennessee and perhaps further South—there being no specific application of this fund, the parties controlling it might appropriate it to roads in Tennessee, the Carolinas, or in any other State, which might be considered a Southern line. Secondly, this bonus proposition of that time contained this further and singular condition, that no appropriation of it should be made until the road or roads to which it should be given were first completed, which brought up the question as to who would furnish the money. Of course the project failed. The investigation here made shows that so large a sum as \$2,000,000 (the amount then thought necessary) is not required, that \$1,200,000 or \$1,500,000 is all that will probably be needed, and this too as the work advances.

Can or can not this amount be raised, and that too without seriously burthening anybody? Take that which is thought to be necessary to aid the first section to the Lebanon branch, \$600,000. There is Fayette, Jessamine, Mercer and Boyle counties, and Lexington and Danville in Kentucky, all deeply interested in this work. Can not all these together raise \$150,000 of the sum? Will Covington and Newport think it oppressive to be called upon for \$50,000? Will all the lines of railway terminating at Cincinnati from the East, the North, and the West, with the vast increase of traffic which this Southern road, if completed, must furnish, feel themselves too poor to make a contribution of \$150,000? and Cincinnati, sneered at and badgered as she is and has been for her lack of public enterprise, will she, with her very existence periled by the lack of this improvement, withhold the sum of \$250,000? Do not be astonished, but this contribution would be less than one-fifth of one per cent. on the \$136,000,000 of taxable property of the city as it stands upon the duplicate. What increase of business this road would give us.

and how much its completion would increase the valuation on that duplicate, has been the subject of frequent computations by our citizens.

But what of the section beyond? While devising ways and means for the completion of the first section, we must not lose sight of those beyond, for the value of the whole depends upon the construction of the entire line through.

The first section, from Nicholasville to the junction, twenty-eight miles, will cost, according to Mr. Gunn's estimate, \$1,156,200, that places the completion of the Kentucky river bridge, by Mr. Roebling's estimate, at \$300,000—Mr. Lovett makes it \$400,000. It is safer to take the largest sum; the difference added to Mr. Gunn's estimate makes \$1,256,200. As before said, the \$600,000 is deemed sufficient for this section.

The second, of forty-eight miles to the Cumberland river, will cost \$1,774,625. A large increase of business may be counted on from this point, and there being no heavy bridge structure on it, a less proportionate bonus is required; \$700,000 it is thought will assure the needed subscription of \$1,075,000 to the stock, which provides the necessary means to construct it. These completed gives us eighty-nine miles of finished road South from Lexington, costing \$3,030,000 free of encumbrance, and brings us within thirty-seven miles of the State line.

This second bonus of \$700,000 should be obtained by the contributors to the first, doubling their several amounts, the second half to be paid only as the second section is prosecuted, with a contribution from the counties South of Boyle, which it is believed may be readily obtained. This makes the entire contribution required from Cincinnati but a little rising \$550,000, which is less than one-half of one per cent. on her valuation, and from the other contributors in like proportion, and that too in payments so gradual as likely hardly to be felt.

The plan of contributing aid in the construction of roads, as compensation for the benefits which the roads when finished confer, is not new, many receiving as high as \$10,000 and \$12,000 per mile from rural districts only. The Whitewater Valley branch of the Indianapolis and Cincinnati road was thus built, each section receiving contributions amounting fully to that sum, section by section as the work was pushed on.

How about this last section of thirty-seven miles; it is over a mountainous and comparatively waste country which can contribute nothing but the right of way and possibly some land? Mr. Gunn says that we will be met at the State line by the road from Knoxville, which opens to us at once communication with six thousand miles of Southern roads radiating over seven States, and that the traffic over our entire line of road will thereby be doubled, perhaps tripled at once! Will this not be motive enough to secure the sum needed for its construction by sale of stock of the company.

But allow every other resource to fail, we have eighty-nine miles of unincumbered, finished road, costing \$3,030,000, and our margin of interest in the roads purchased amounting to \$1,280,000. Is not this basis enough for the issue of \$1,602,223 of bonds, which is Mr. Gunn's estimated cost of building it? With this programme carried out the account stands thus:

Cost of the Kentucky Central and Lexington and Danville roads at

their offer.....	\$3,780,000
Cost to construct the new line from Nicholasville to State line, one hundred and thirteen miles.....	4,633,058
	<u>\$8,413,058</u>

Represented by bonds issued for the purchase of the Kentucky Central road, which it conveys to the new company.....

Stock for the purchase of "The Cincinnati, Lexington, and East Tennessee Railroad.....	\$2,500,000
Stock issued to make cash payment for Kentucky Central road.....	830,000

Stock issued to construct first section south of Nicholasville.....	650,000
Stock issued to construct second section to Cumberland River.....	1,075,000

Stock issued to construct third section to State line.....	1,602,000
	<u>4,607,000</u>
	\$7,107,000

Represented by bonus.....	\$1,306,158
	<u>\$8,413,058</u>

Total.....
And leaving the cost of the new company of the entire line through, two hundred and twenty five miles long
Or \$31,586 per mile.

To quiet a doubt as to the validity of the title of the Kentucky Central road arising out of the proceedings connected with the judicial sale in 1859, the opinion of eminent counsel was asked upon the point. They report everything connected with that sale as "in due form of law." They refer incidentally however to two points; the first of which will probably be disposed of before any action is taken on this proposition. The second is as to the cancellation of a mortgage in favor of the city of Cincinnati, given to secure a loan of \$100,000 to the company,—stock security was substituted for the mortgage whereby the city lost the money. The question arising is as to the power of the City Council to cancel that mortgage by ordinance. Now admit the doubt, nay, admit the incumbrance if you please, will the people of this city, with the strong desire now felt to secure this road, hesitate one moment to make that cancellation valid by any proceedings necessary to that end.

It may be stated in conclusion that if such a response is made to this programme as shall indicate that its propositions will be accepted, in a reasonable time books will be opened in this city and elsewhere by the "Cincinnati, Lexington, and East Tennessee Company," for subscriptions to its stock to an amount sufficient to complete the purchase of the Kentucky Central road—the reorganization and transfer to the new company to take place immediately thereafter, the new stockholders being entitled to vote in the selection of the managers. The proposition of both companies expire at the end of ninety days if action is not had in the meantime on the subject. It rests with the people to say whether this work shall be prosecuted or not; all I claim for this is the merit of presenting a practicable scheme.

I may be permitted to add this by way of addenda:

Let a sharp and vigorous canvass be instituted for this stock and this bonus; let the whole body of our citizens, both here and those along the proposed line, devote themselves to it, each one feeling that upon his individual effort depends its success. This done and midsummer may not have passed before we may be at work; and within eighteen months delivering freights and passengers at Charleston, Savannah, Pensacola, Mobile, and New Orleans, without break of bulk or change of cars, the five foot gauge being uniform throughout the South, and the connections perfect to each of these points.

Accompanying this I send you a copy of a plan for the construction of the Southern Railroad.

A project of improvement which has sustained so many defeats as this one has, can not afford to go before the public again with anything less than the best scheme which can be devised for its accomplishment.

I have expended much time, thought and labor in preparing this one, but my experience and judgment may not have reached every point and covered all the ground: your proved and acknowledged capacity for the investigation and adjustment of such subjects, together with the interest which I know you take in this induces me to ask your criticism of the plan, and, if it meets your approval, a brief note of endorsement to go to the public at the end of this pamphlet.

Very truly yours,
SAM'L H. GOODIN.

INDIANAPOLIS, CINCINNATI & LAFAYETTE R.R. }
Cincinnati, March 16, 1868.

SAM'L H. GOODIN, Esq.,—Dear Sir: I have examined with much care your recent pamphlet upon the subject of the proposed extension of the Railroad South from Lexington and the purchase of the Covington and Lexington, or Kentucky Central Line. I cordially endorse your conclusions, and I can heartily hope that the plan so satisfactorily indicated by you on a similar one may be adopted by our capitalists, and be prosecuted with all possible vigor. I regard the present as a most critical hour for the City of Cincinnati. She is flanked on the East, the North and the West, by rival and hostile interests, and her only hope and her only safety lies toward the South. She must stretch her iron arms in that direction and draw the trade of the South to her doors, or the decline of her prosperity is as certain as any event in the future.

Truly yours,
H. C. LORD.

President's Office,—CINCINNATI, HAMILTON }
& DAYTON, DAYTON & MICHIGAN, and }
CIN., RICHMOND & CHICAGO R. R. }
Cincinnati, March 18, 1868.

SAM'L H. GOODIN, Esq.,—Dear Sir: I have your letter of the 21st ult., requesting my opinion of the practicability of your plan for extending the Kentucky Central and Lexington and Danville Roads to a point further South, so as to connect Cincinnati with Knoxville and the whole system of Southern Railroads. I have read your pamphlet with much interest, and consider the plan you propose to pursue as quite feasible.

The first section will bring the road to a connection with the one now building from Louisville, and through this we may reach Knoxville and the South, without more ex-

penditure than necessary to build over the Kentucky River a suitable bridge and eighteen miles of road beyond.

Wishing you success in the enterprise,
I remain, yours truly,
S. S. L'HOMMEDIEU, *President*.

OHIO & MISSISSIPPI RAILROAD Co. }
Cincinnati, March 16, 1868. }

S. H. GOODIN, Esq.,—*Dear Sir*: I have received your pamphlet entitled "Plan for the construction of the direct Railroad South, connecting Cincinnati with the Southern system of Railroads, and also your letter asking my opinion in regard to the programme presented by it.

I am not well qualified to judge of the merits financially considered, of this Railroad enterprise, as I have very little knowledge of the business resources of the region South and South-east from Lexington, Kentucky, nor of the practical relation those resources would bear to the North-west, with proper medium of transportation. It is evident I think that a large emigration will flow from that region into the North-western States.

The plan developed in your pamphlet for the construction of the proposed Railroad evinces a thorough consideration of the subject, and I should say is wise and practical. You have clearly pointed out the way. If the people interested will put forth their zeal and apply their means in the mode presented the whole enterprise will be quickly accomplished.

Very respectfully,

W. D. GRISWOLD, *Pres't*.

LITTLE MIAMI AND COLUMBUS & XENIA }
RAILROAD Co. }
Cincinnati, March 25, 1868. }

S. H. GOODIN, Esq.,—*Dear Sir*: I am of the opinion that your plan for the construction of a Southern Railroad from this vicinity is the most feasible one yet presented.

There seems to be a backwardness on the part of the capitalists and business men of this city, in taking hold of the enterprise—quite difficult to understand—when we consider its vital importance to the future interests of this city.

We are about commencing an effort to construct a Railroad Bridge over the Ohio. This, we hope, may be the beginning of a Southern Railroad.

It will be so far a considerable period at least—for through the Louisville & Cincinnati road, we shall have a connection with the road now building between Louisville and Knoxville.

It is to be hoped that the business men of Cincinnati will ultimately see the importance of a more direct road South than that afforded via Louisville.

Respectfully,

E. W. WOODWARD.

The receipts of the Western Union Railroad Company for the week ending March 21:

	1868.	1867.	Inc.	Dec.
Freight.....	\$7,127 63	\$5,469 53	\$1,658 10	.....
Passengers.....	3,651 82	2,953 35	698 47	.....
Express and Tel..	350 00	321 00	30 00	.....
Mail.....	375 00	375 00		.....
Totals.....	\$11,504 45	\$9,119 88	\$2,384 47	.....

Receipts from January 1, to March 21:

1868.....	\$19,608 62
1867.....	92,595 90

Increase..... \$17,912 72

Trains withdrawn on 40 miles of road all the week owing to damages.

Bridging the Ohio.

This paper contains a description of the bridge which it is proposed to construct across the Ohio river, near the mouth of Deer Creek, to afford a transit for railroads and accommodation for the large local travel between this city and Newport. There is also in another place a letter from Mr. Roebling, the engineer under whose direction the present beautiful wire suspension span connecting Covington and this city, with roadways for foot and carriage travel was constructed. Mr. Roebling, with a just pride in his great engineering triumph, and a natural conceit in his preference for a single-span structure, presents some strong arguments against the construction of bridges with piers, or at least with piers that are not very widely separated in the channel of the river.

This question of single spans, or two or three spans with piers, over the channel of the river, is one about which some controversy may be sprung by rival railway interests. Indeed, it seems to be already brewing. We hope, however, that such a controversy will only result in our having the bridge most eligibly located for the interests of Cincinnati—as a matter of course those interests will be most in harmony with the interests of the railroads centering here—and constructed in a manner best adapted to its proposed uses. Any company of persons interested in property here, who would undertake, with direct purpose, to construct a bridge so as to interfere with the navigation of the river, would be guilty of so stupid a conspiracy against their own interests that it may be taken for granted that such a thing is impossible, and still farther, that it would not be tolerated. On the other hand, in the light of experience in engineering, it is not reasonable to suppose that any artificial obstruction to the navigation here could very easily result from blundering, consequently it may be presumed that we can have a railroad viaduct that will not interfere with or damage our river commerce; and if our railroad or local interests require it, that we can have more than one. In other words, that our navigable streams may, in the demands of land transportation, be crossed at any desired point, provided the navigation of those streams may not be interrupted thereby.

There is already a pier bridge at Steubenville, another is being constructed at Parkersburg, another at Louisville, and others are in contemplation at other points below, as well as at numerous points on the Mississippi river. It will not, consequently, do for us to confine our jealous apprehensions as to obstructions in the river to this point; but if impelled by that selfishness that so generally controls us all, we had better fight those enterprises that are likely to do our commerce greatest harm, as certainly obstructions both above and below us on the Ohio will. If our river is to be dammed, we must have our best chance at the water-power to be afforded by it.

It is proper to say of the pier plan that is contemplated for the bridge proposed to be constructed to Newport, that it is to be provided that the piers shall be very sharp, in long projections up stream, and to be 300 feet apart in the channel, so located as to be precisely parallel with the current.

We can not offer to be umpires as to all the questions presented in this important matter of providing by private capital for the much needed railroad transit here, but we give such

information as is at hand concerning the subject, affirming the great desirability of a bridge at the point named, advocating such a plan as will not interfere with river commerce, and recognizing the propriety of building other bridges, if private capital can find the investment attractive. As to styles of bridges, we believe that varieties of them that will answer the purpose would be rather more tasty than uniformity.

In conclusion we must urge upon our legislative or municipal authorities who may have to act upon the question of franchise as to such enterprises, that they must not be biased by the unfriendly rivalries that such projects present. Let private capital have the freest scope for such important works that are not destructive of common rights or against sound public policy. We must grant every facility for such public undertakings as will concentrate here a large commerce, and allow petty rivalries no longer to jeopardize our future growth.—*Commercial*.

Recent Scientific Discoveries.

Porosity of Cast-iron.—The Porosity of cast iron is a well-known fact. Many years ago, Mr. Perkins forced water through thick plates of it; hence it is not astonishing that gases pass with ease. A few years ago, a physician at Chambéry was struck with the circumstance that an epidemic of fever occurred in Savoy every winter; and he fancied that he had traced the cause to the use in the cottages of cast-iron stoves, which allowed the gases of combustion to pass into the atmosphere of the rooms. The subject has been investigated by MM. Deville and Troost, and they find, by a very carefully conducted experiment, that hydrogen, carbonic acid, and carbonic oxyd do actually pass through the walls of a cast-iron stove, at a dull as well as at a bright red heat. The fact is worth knowing here, for such stoves are often used in this country, and most frequently in ill-ventilated apartments. The amount of gases which pass is not large, but carbonic oxyd is an exceedingly poisonous agent, and most of the discomfort experienced in rooms heated by these stoves is no doubt attributable to that gas. The subject deserves the attention of manufacturers who might possibly devise a tile or clay-lined stove that would diminish the inconvenience we mention, and at the same time economize fuel.

The Light of the Magneto-electric Machine.—In Holmes's magneto-electric machine each revolution develops sixteen currents in opposite directions; hence the light it produces must be discontinuous, being extinguished and relighted sixteen times in the course of each revolution. As the machine makes 500 revolutions in a minute, the interval of time during which the current is cut off is excessively small; nevertheless, M. Jamin thought he could demonstrate the intermittence of the light. He failed to do this, but was able to recognize that the light of the luminous arc was less intense than that given off by the charcoal points, which he attributes to the interruption of the current. Properly speaking, he says we have in this lamp not the discontinuous electric light, but that of the carbon poles heated to intense whiteness, and giving a light nearly uniform. The light of the magneto-electric machine is, therefore, less blue and poorer in chemical rays than that from a lamp excited by a battery, and consequently better adapted for light-houses.

Gas from Waste Materials—The experiments now in progress at Woolwich Arsenal in the manufacture of gas from a mixture of Trinidad bitumen and coal remind us of the recent use of various waste materials for the purpose in Germany. Among these are the residues of the manufacture of paraffine, and the refining of petroleum oils. With each of these materials a large quantity of permanent gas of a high illuminating power was procured. Another substance experimented with was the waste grease from the woolen manufacture, which yielded a smaller amount of gas. From a review of all the experiments, however, it is concluded that the use of bituminous oils, in combination with coal or peat, for the production of gas, offers no advantages as regards price over ordinary coal-gas. In small works it may be profitable when manufacturers use up their own waste products.—*Mechanics' Magazine.*

PROPOSALS.

KNOXVILLE & KENTUCKY RAILROAD.

PROPOSALS FOR THE GRADATION and Masonry of the Nineteen miles of this Road not yet under contract, extending from a point two miles south of Elk Gap to the Kentucky line near the town of Boston, will be received at this office until the 24th day of April next.

The profile and specifications for this section, which includes four Tunnels, varying from two hundred and fifty to seventeen hundred and fifty feet in length, with other heavy work, can be seen at the Engineer's Office in Knoxville, after the 14th of April.

The Company reserve the right to reject all bids.
For further information address.

ADRIAN TERRY,
Chief Engineer, &c.

KNOXVILLE, TENN., March 26th. 1868.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to
Baltimore.

JNO. L. WILSON, Master of Transportation.
L. M. COLE, General Ticket Agent.
JNO. W. BROWN, General Passenger Agent.

} Dec. '67.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT.

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

CINCINNATI, O

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

Bills Lading,

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Late Master Car Builder C.H. & D. & M.

MERCER, MORE & CO.,

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L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati.
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati.
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton.
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis, Aug. 2, 1866.

THE

STEAM SYPHON PUMP

IS THE

Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

A locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

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THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00 a.m.....	7,00 p.m.
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40 p.m.....	4,03 a.m.
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30 a.m.....	10,38 p.m.
" Paterson.....	2,33 p.m.....	6,17 a.m.
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00 a.m.....	5,00 p.m.

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 1:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. Y.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12:15 p.m.

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

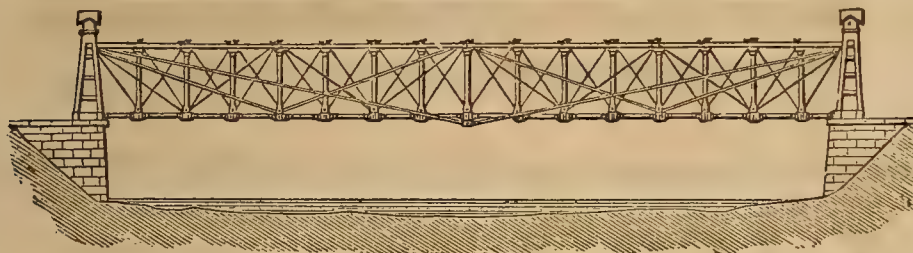
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

47 West Front St., Cincinnati.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel. Ty

—AND—

Railroad Machine Works.

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for
Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT.

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg. Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and en route to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure *through tickets and through checks* to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wes. Ag't. Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ci,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY, (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7:00 am	10 50 pm
Indianapolis and Cairo Express.....	7:50 am	2 30 am
Cairo and St. Louis Express.....	2:20 pm	4 05 m
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7:15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8:50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10:10 am	8 35 am
Cornersville and Cambridge City.....	4:00 pm	9 15 am
Lawrenceburg.....	4:45 pm	2 40 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES, AND CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, Constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., &c.
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
BY G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, APRIL 9, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lighting Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lighting Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lighting Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:30 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connerville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connerville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	8:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Cincinnati and Its Prospects in 1868.

So steady, without any wonderful rapidity, has been the growth of Cincinnati the last fifteen years, that its citizens have said little about it. They could not boast, as some Western cities have, that they were building thousands of houses each year, (and yet somehow Cincinnati managed to keep ahead of those cities,) so they were a tolerable large place and a pretty numerous collection of people. Upon the whole, it is better they have not bragged so much, and held fast more. The growth of the city has been steady, vigorous, and prosperous. Let us look at some of its elements fairly, and get a view of its present condition. We may do this by looking at its extent, its wealth, its exterior growth, and proposed improvements.

1. *Of its extent.*—Few, even of its citizens, know how Cincinnati is. At present the city has twenty (20) Wards, the East end of which is machine shops of the Little Miami Railroad at Pendleton; the west side of which is Mill Creek; the northern boundary, a line passing along the brow of the hills, through Walnut Hills and Mount Auburn. But this gives no correct view of what the entire city is. Beyond the east line is Pendleton, and then Columbia, which stretch along on a continued street. The beginning of Cincinnati on the east is beyond the Columbia Station on the L. M. Railroad, about five miles from Main street. The beginning of the west is below Sedamsville, making the river front of the city about nine miles. It is no doubt longer that way, because hemmed in by the hills; but, on the north side, they several years since began to climb and go over the hills, and now become evident to all eyes, that the largest part of the population must in a short time be on the hills. On the top of the hills we see Mount Auburn and Walnut Hills, both now large towns; but, if we go up the Vine Street Road, the houses are continuous through Corryville to the north side of Avondale. On the west side of Mill Creek, villages are also springing up; and on the Hamilton Road, there is a continuous town for three miles. It is now evident that Walnut Hills, Mount Auburn, Corryville, Avondale, Clifton, etc., etc., will soon run together and make a continuous town. Indeed, it is singular that these suburbs have not already been taken into the city limits. Necessity will compel this very soon. Such is the extent of Cincinnati; about nine miles on the river front, and a boundary on the north of probably twelve miles, varying in distance from the river from half a mile to five miles. Probably not less than twenty square miles are covered by what is really the City of Cincinnati. Of course, this is not all built up already.

2. *Of its Wealth.*—This is vastly greater than many suppose. The Income Returns for the year 1866, show that Cincinnati was

the fifth city of the United States in wealth, exceeding Baltimore, Chicago, St. Louis, and New Orleans. This is owing to the fact, that all business at Cincinnati is done on a solid basis. Neither great speculations nor great bankruptcies are found in Cincinnati. One reason of this is, that it had never till recently sufficient Banking capital; and its merchants therefore never had much opportunity of great speculations. However that may be, it is certain that Cincinnati has a great deal of solid capital, and a large aggregate of incomes. The merchants are generally prudent and cautious men. With this solid basis of wealth, it is very apparent that Cincinnati is ready for a forward movement at any moment. Hence, if business becomes active and crops good, the commercial movement will probably be greater and more rapid in proportion than in any part of the United States.

3. *Exterior Growth.*—By this we mean the continual accretion outside of even the limits we have already described. Outside of Avondale and Clifton lies Cumminsville, College Hill, Madisonville, Mount Washington, California, and various other localities not much further, all of which are filled with city people, and all of which have a constant growth towards the city. In fine, on every side within ten miles, Cincinnati is growing with immense rapidity. The vicinity of the city is exceedingly beautiful. No city of the United States has such beautiful environs. The hills rising about 250 feet from the river, and intersected with vales and ravines, present in every direction beautiful sites for buildings, both for individuals and villages. Hence, the suburb population is larger in proportion than in any city of the country.

4. *Future Improvement.*—This city has been very slow to make public improvements, but seems now to be embarked in a series of contemplated enterprises, which will probably result in a greater display of splendid works than is to be found in this country. Foremost of these, and already completed, is the grand Suspension Bridge. This is unequalled by anything of the kind in the country. A charter for another Bridge, Railroad, has just been chartered, and from appearance will soon be made to connect the Louisville and Cincinnati Railroad with the railroads going east. Next, new Water Works are to be built, which will be on a magnificent scale, and extensive enough to supply the whole vast city, which will then embrace all the suburbs near the present city. Then, a series of avenues have been created, and by law, and will soon be made, leading up through the principal roads, leading through the hills, and winding among the present suburbs. These avenues, if made wide enough, will make the grandest roads for riding and walking in this country. Thus far, these great improvements will undoubtedly be made at an early day. Then, there is a public opinion, and some steps taken by

the Council, to procure and adorn a grand public park. This *ought* unquestionably to be outside the present city; in fact, far enough out, to secure an abundance of ground, capable of being fully supplied with water for lake, reservoir and streams. Such a park may be made finer than any in the country.

With the immense growth and wealth of Cincinnati, and these splendid improvements, it is evident that the Cincinnati of the future will be one of the most splendid cities on the continent. In 1805, it was a little dirty village. In 1875, it will probably (if not overtaken with unforeseen calamities,) be one of the richest and most prosperous cities on the globe. But this much depends on a broad and liberal policy to be adopted now, and to be thoroughly carried out.

Pittsburgh, Fort Wayne & Chicago Railway.

Meeting of the Stockholders—Sixth Annual Report—Full Exhibit of the Financial Condition of the Company—Resolutions—Election of Directors, Etc., Etc.

[From the Daily Commercial.]

The sixth annual meeting of the stockholders of the Pittsburgh, Fort Wayne and Chicago Railway Company was held in the office in this city yesterday.

Hon. John Larwell, of Wooster, Ohio, was appointed Chairman, and F. M. Hutchinson, Esq., Secretary.

The Secretary then read the annual report of the President and Board of Directors as follows:

REPORT.

To the Shareholders and Bondholders of the Pittsburgh, Fort Wayne and Chicago Railroad Company:

Your Board of Directors, in again surrendering the trust confided to them, present their sixth annual report.

FINANCIAL CONDITION OF THE COMPANY.

The condition of the Company, at the close of the fiscal year ending December 31, 1867, was as follows:

Capital Stock.....	\$11,500,000 00
Bonds—1st mort. \$5,250,000	
—2d " 5,160,000	
—3d " 2,000,000	
Bridge O.&P.	
R. R. Co... 153,000	
	\$12,563,000 00
Miscellaneous liabilities.....	149,851 06
Due for current expenditures mainly in December.....	573,259 40
Balance to credit of income account.....	3,480,126 88

Total..... \$28,266,267 34

To represent or pay which, you have the property named below:

Main line, equipments, etc....	\$25,271,285 63
Akron Branch.....	207,575 03
Stock of supplies or materials per current operations.....	561,443 99
Due from other companies.....	\$368,596 14
Less due them....	77,514 60
	291,081 54

Cost of first and second mortgage bonds held by Trustees of the Sinking Fund.....	404,710 26
Miscellaneous assets, including investments in other companies.....	633,641 44
Cash.....	896,529 45

Total..... \$28,266,267 34

The strength of the Company's financial position may be more readily determined by reference to the following statement:

The immediate liabilities are:

For current expenditures in December, &c.....	\$573,289 40
For other miscellaneous liabilities.....	149,851 06

Total liabilities..... \$723,140 46

To pay which you have the following:

Cash.....	\$896,529 45
Net amount due by other comp's.....	291,081 54
Miscellaneous assets.....	633,641 44

Total assets..... \$1,821,252 43

Excess of assets over liabilities.. \$1,098,111 97

Out of this sum was to be provided the interest on the mortgage debt, and installment on sinking fund, due January 1, 1868, amounting to \$112,775; and the dividend declared on the third mortgage bonds, and on the capital stock, payable January 18, 1868, amounting to \$336,875; in all, \$449,650, which would leave a balance of \$648,561 97. This sum, which may to some appear large, is not, however, more than sufficient for carrying on the operations of the treasury with that promptness and comfort which are desirable, especially when it is remembered that it includes an amount of current accounts that must remain, from the nature of the business, more or less unadjusted.

Of the balance to the credit of Income Account amounting to \$3,480,126 88, your Board has directed the Auditor to charge off the sum of \$2,382,014 91, which will reduce this balance to \$1,098,111 97, being the amount of the excess of assets over liabilities, as shown above, and to credit to cost of the Main Line and equipment the sum thus charged off, thus reducing the cost \$22,889,270 72.

EARNINGS.

The earnings and expenses of the Main Line were:

From local frts....	\$1,821,297 36
From foreign frts....	2,662,409 06
	\$4,483,616 42
From local passengers.....	\$1,361,189 73
From foreign passengers.....	1,077,823 76
	\$2,489,013 39
From express matter.....	100,632 26
From mail service.....	93,900 00
From rent of railway.....	85,000 00
From rent of other property.....	6,651 92
From miscellaneous sources.....	33,311 97

Total..... \$7,242,125 96

These earnings are at the rate of \$15,764.76 per mile of road, and, compared with 1866, show a decrease in the aggregate of \$225,091 60.

EXPENSES.

The expenses of doing the above mentioned business were:

For conducting transportation....	\$1,192,485 87
For motive power.....	1,438,633 48
For maintenance of railway.....	1,382,384 72

For maintenance of cars.....	505,342 63
For general expenses.....	344,725 37

Total (67½ per cent. of earnings).....	\$3,863,572 67
Net earnings of Main Line.....	2,378,553 89
Net earnings of Main Line, 1866.....	2,319,531 02

Increase.....	59,022 89
The earnings of the New Castle Branch, 15 miles, were.....	184,207 31
Of which was paid to N. C. Br. R. R. 40 per cent.	73,682 84

P. F. W. & C. R. W. Co.'s proportion.....	110,524 47
From which deduct the expenses.....	55,180 54

Leaves a net profit to this company.....	\$ 55,343 93
Profit for 1866.....	55,460 56

Decrease..... 116 63

THE LAWRENCE RAILROAD.

Since the date of the last annual report the Lawrence Railroad extending from Mahoningtown, about two miles south of New Castle, Pa., to Youngstown, Ohio, has been completed, and opened for business under the management of this company. No permanent contract has yet been made for the operating of that road, your Board deeming it best to defer making such contract until there has been a more full development of the business and capacity of the line.

The business done on the road (21 miles) to Dec. 31, ult., has been settled by charging against the earnings the expense of operating and maintaining the road and the equipment in use upon it, together with a reasonable sum for the use of such equipment.

The earnings of this branch from March to December, 1866, were..	\$11,587 93
And during the year 1867.....	72,533 09

Total to December 31, 1867.... \$84,121 02

The expenses were—	
From March to December, 1866....	5,310 48
And during the year 1867.....	27,956 14
	\$33,266 62

Net earnings.....	\$50,854 40
Deduct amount paid to Lawrence R. R. Co.....	\$32,598 52

Leaves as profit to this comp. \$18,225 88

The business of this branch has steadily increased, and from the time of its completion through, its increase is much beyond the expectations of the officers of the road, and would appear for the last six months of the year to have been limited only by the deficiency of the particular class of equipment necessary for the trade originating upon it.

Considerable expenditure is yet necessary to effect a desirable entrance into Youngstown, the present terminus of the road—the entrance now being accomplished temporarily over the track of the Cleveland and Mahoning Railroad, leased by the Atlantic and Great Western Railway Company.

THE AKRON BRANCH.

The Akron branch, sixty-one miles in length, from Hudson, Ohio, to Millersburg, Ohio, has continued to be operated as a separate organization from that of this Company; under the careful and judicious management of Col. Simon Perkins.

Its earnings during the past year were.....\$160,287 17
And the expenses were..... 135,404 98

Profit.....\$ 24,882 19

This amount, after paying the interest on the mortgage debt, subject to which this Company purchased the property, has been used partly towards extending the road, and partly in the purchase of bonds secured by such mortgage. The amount of the bonds has, in this manner, been reduced from \$200,000 to \$160,000.

Reference was made in the last report of your Board to the arrangements for the extension of this road from its terminus at Millersburg to the bituminous coal fields a few miles north of that place, and it was confidently expected to have the track down and ready for use before last autumn, but unforeseen difficulties on the part of the Coal Company engaged in operating mines, and which prevented it from laying down its tracks, rendered it unnecessary to hasten the putting down the track of our extension until the Coal Company was ready to make a connection. The track, however, at the date of writing this report, is being laid, and a large coal traffic over the entire line to Cleveland may soon reasonably be expected.

The expenditures during the year for this extension were \$27,745 63.

SUMMARY OF FINANCIAL OPERATIONS.

A summary of the Company's financial operations will show the following result:

Profit in operating Main Line...\$2,378,553 89
Profit in operating New Castle Branch..... 55,343 93
Profit in operating Lawrence Branch..... 18,255 88
Received from Purchasing Committee of old organization..... 80,000 00
Total revenue.....\$2,532,153 70

This sum has been appropriated.

Interest on mortgage debt.....\$ 864,074 74
Sinking fund..... 104,100 00
Interest on bonds taken up by trustees of sink. fund 22,475 26
\$ 126,575 16

Cleveland and Pittsburgh Railroad Co., under contract for division of earnings..... 170,903 77
Dividends on stock, ten per cent.....\$1,034,375 00
U. S. tax on same. 54,441 31

1,088,816 31
\$2,250,370 08
Surplus 281,783 62

Add amount stated in last annual report as balance of previous year's operations..... 199,918 53

Less cost of purchase of Akron Branch, erroneously included in this sum..... 179,829 40

20,089 13
Proceeds of issue of 15,000 shares of new stock authorized by the stockholders in May, 1867.....\$1,216,060 02

Total means applicable to im-

provements, etc..... 1,517,932 77
Appropriated as follows:
Extension of Akron Branch.....\$ 27,745 63
Less contributed by earnings of that branch..... 5,200 00
22,545 63
New construction and equipment for Main Line..... 963,895 60
Indebtedness liquidated existing prior to January 1, 1867.. 333,798 14
1,245,239 37
Balance unexpended..... 192,693 40

COMPARISON OF EARNINGS.

By comparing the earnings of the Main Line with those of 1866, it will be found that the revenue from freights has fallen off \$223,965 70, of which \$170,307 11 occurred in the local, and \$53,658 59 in the foreign business, or that which emanates from, or is destined to points on other roads, and that may be reached by competing lines; that the revenue from passengers has decreased but the trifling sum of \$2,882 31, which occurred wholly in the competition travel, and that the revenue from miscellaneous sources decreased \$2,360,34, while on the other hand there is shown an increase of \$333 83 in the account received from express companies, and \$3,782 92 from rents of property—the aggregate decrease having been \$225,091 60.

Although the earnings from transportation of freights exhibit the decrease above stated, the routine of business in this department was greater than in the previous year, for the tonnage carried increased 128,573 tons. Of this increase 103,151 tons were local, and 25,422 tons were foreign or competitive tonnage. The whole tonnage of the main line was: local 671,348 tons, and foreign 483,003; total, 1,154,351 tons.

This apparent anomaly of a reduced revenue from an increased amount of tonnage is explained by three facts:

First—In the local business on the Eastern Division, where the entire increase of tonnage occurred, the average haul per ton was twenty per cent. less than in 1866. This was mainly occasioned by the large transportation of coal and pig iron to and from the New Castle and Lawrence Branches.

Second—In both the local and foreign business on the Western Division there was a reduced amount of tonnage coupled with a less haul per ton.

Third—Owing to the general depression of business, and the consequent competition between the lines leading to the Atlantic seaboard, lower rates were established during the greater part of the year on the foreign or competitive tonnage.

The large increase of tonnage on the Eastern Division, amounting last year to 159,803 tons, or about twenty per cent., rather more than half of which was local to the road, and which is likely to be still further augmented hereafter by the growth of manufacturing on this Division, and the development of the iron and coal interests on the New Castle and Lawrence Branches, which are tributary to it, indicates the necessity of increasing the equipment of the road for this kind of traffic.

The following table will exhibit the kind of tonnage transported:

	1867.	1866.	Inc.	Dec.
Products of the forest.	115,317	93,266	22,051	
Products of animals..	211,882	214,680		2,798
Vegetable products..	152,975	192,149		39,174
Man'fact's.	207,512	186,250	21,262	
Merch'dise	136,692	108,751	27,941	
Iron rails..	38,270	25,959	12,311	
Coal	205,553	158,382	47,171	
Ore, cinder &c.....	86,150	46,341	39,809	
Totals.....	1,154,351	1,025,778	128,573	41,972

While the passenger earnings are in the aggregate but \$2,882 31 less than in 1866, a comparison of the local and foreign trade with the same class of business in that year will show important changes.

For, while the number of local passengers increased 77,729 or seven per cent., with an increased revenue of \$107,027 89, the foreign passengers decreased, 63,926, or a trifle less than thirty-one per cent., with a corresponding reduction in revenue of \$107,910 20, which would have been much further reduced had not this class of travel averaged a greater number of miles per passenger than in 1866. The average mileage per passenger in 1866 was 218 miles, and in 1867, 293 miles.

The whole increase of revenue from local travel occurred on the Eastern Division, and ninety per cent. of the reduction in revenue from travel also occurred on the same division.

These deductions from the accounts of the Company, and a comparison of them with the results of previous years, would seem to establish three important facts bearing upon the future income of the Road, which are: that the local travel generally is steadily increasing in numbers and in revenue; that the foreign travel is decreasing in numbers and to a limited extent in revenue, principally from the effects of competition to southwestern points which business has hitherto augmented the revenue of the Eastern Division (Pittsburgh to Crestline); and that the foreign travel still possessed by the Company is yet assuming a more valuable character, in that a larger income is received from a small number of persons carried, by reason of their journeys being for greater continuous distances.

The continued high price of labor and materials has prevented much of a reduction in the expenses of operating and maintaining the main line. They will, however, compare favorably with leading railways. A comparison with 1866 will show a decrease of \$87,986 57 in conducting transportation; \$129,562 56 in motive power; \$47,567 87 in maintenance of cars; \$130,849 18 in general expenses, and an increase of \$111,857 71 in maintenance of way; in the aggregate, a decrease of \$284,114 47, or 5½ per cent. The foregoing, however, does not exhibit the true relative reduction in the expenses, as a larger volume of business was done, and consequently a greater amount of train mileage was made.

In 1867 the train mileage was 4,723,003 miles, excluding the mileage of wood and gravel trains, and in 1866 the amount was 4,574,204 miles, an increase of 149,399 miles. The aggregate expense per mile of trains in 1866 was \$1 12 3-10, while in 1867 it was \$1 03, showing a reduction of 9 cents per mile, or at the rate of eight per cent.

This, therefore, is the true measure of the

reduction in expenses during the past year, and the result certainly reflects credit upon the officers in charge of the line, especially when it is considered that the whole property has been much improved.

THE ROADWAY.

Acting upon the principal that the more perfect the track of a railway is, the greater the economy will be in the other departments of operation, continued efforts have been made towards the attainment of a more substantial road-bed by the large expenditures for ballasting. The amount thus expended and charged to repairs was \$165,269 85. The continued rapid deterioration of the iron rails has rendered it necessary to continue the extensive renewals, which for the past five years has been the cause of such heavy drains on the income of the Company. During the past year 116 miles have been relaid with new and rerolled iron, equal to 25 per cent. of the entire length of the road, at a cost of \$480,127 10.

The average renewal of cross-ties has also been continued, 246,801 having been put in the track, equal to about 128 miles.

Since and including 1864, there have been 500 miles of track renewed with new or rerolled rails, and 400 miles with cross-ties.

This is equivalent to a relaying of the whole road with new iron every four years, and with new cross-ties every four and two-thirds years.

This deterioration of iron rails must be attributed mainly to the increased weight of locomotives and cars that have of late years gradually, and almost imperceptibly come into use, partly in the case of the passenger business, from the necessity of running heavier trains at high speed, which require more powerful, and, therefore, heavier machines to move than at the required speed, but, mainly, by reason of a prevalent idea, although mistaken in the judgment of your Board, that long freight trains, with greatly increased weight of motive power, is more economical upon the whole, than the short and more numerous trains and light locomotives.

It is not the purpose of your Board to enter now upon the discussion of the subject, involving, as its correct elucidation does, much time and labor in the preparation of the necessary data by research and experiment, and patient and judicious reasoning as to the conclusions to be drawn from given results. The subject is merely introduced at this time in connection with the proposition now generally favored among companies possessing a heavy traffic, of relaying their roads with steel rails, to counteract, to a greater or less extent, the damaging effects of increased weight of motive power and cars. There can be no doubt, from the nature of the metal, that steel will resist the action of heavy trains longer than iron, but considering the much greater cost of steel, and viewed in an economical aspect, and in the light of the proposition previously stated of reducing the dead weight not only of locomotives but of cars; also, especially those employed on freight traffic, and thereby reducing the wear of the rails, the repairs of the machinery, and the interest on the original outlay, together with the interest on the constantly increasing excess expended for repairs, the question may at least be considered unsettled.

Your Board, however, as an experiment, authorized the purchase of three hundred tons of what are known as the Bessemer steel rails, and they were put in the track early in

the past year, between Pittsburg and the shops of the Company in Allegheny City, over which part of the road locomotives and trains are constantly moving, although at low speed. Thus far no perceptible wear is reported by the General Superintendent, and during the time they have been laid probably two sets of the ordinary iron rails would have been so worn as to have rendered it necessary to replace them with new ones.

Your Board has also authorized the purchase of one hundred tons of the Pennsylvania Steel Company, who have recently established works at Harrisburg, Pa. These rails have, at this date, just been delivered, and will be laid on the main track on one of the most difficult grades on the road, where a better opportunity will probably be offered for properly testing them.

The track and especially the road-bed and bridge are in a better condition at this time than ever before, and it will be the policy of the officers in charge of the line, not only to keep them so, but still further improve on their present condition.

Considerable expenditure has been made on the passenger equipment, to bring it up to the higher standard gradually being adopted on the through East and West lines. It will now compare favorably with competing roads. This class of expenditure must continue to increase, inasmuch as superior accommodations seem to be generally demanded by the traveling public. The whole equipment is reported by the General Superintendent as being in good order with less than the average amount undergoing repairs.

The expenditures for permanent additions to the Railway have been as large as your Board expected at the commencement of the year to accomplish.

Of the whole amount expended for new work and additional equipment \$476,035 52 was done under the supervision of the Chief Engineer, and \$487,860 08 under the direct authority of your Executive and the General Superintendent.

The details of these expenditures will be exhibited by the following table:

	Eastern Division.	Western Division.	Total.
Br'gema-sonry....	\$ 48,829 12	\$ 26,402 94	\$ 75,232 06
Br'g superstr'e.	80,110 14	23,288 53	103,398 67
Cars, fr't	128,799 72	140,740 02	269,539 74
Cars, pas-senger..	21,627 19	22,344 15	43,971 34
Chairs...	.....	145 70	145 70
Cross ties	.....	1,204 28	1,204 28
Engine houses..	20,199 15	294 41	20,493 56
Engin'rs sal'r's of	14,914 66	3,556 82	18,471 48
Fencing.	12,785 24	1,257 20	14,042 44
Foreman and tool houses..	71 00	.....	71 00
Grading.	55,125 82	14,744 05	69,869 87
Incid'tals	504 89	87 92	592 81
Iron rails	1,156 07	6,731 92	7,887 99
Locomo-tives....	75,068 55	62,173 13	137,241 68
Machin'y for sh'ps	3,054 94	682 59	3,737 53
Prin'g & stat'ny..	8 25	24 25	32 50
Real Est.	12,456 32	306 38	12,762 72
Right of			

way....	7,206 44	972 71	8,179 15
Railway super-struct're		443 36	443 36
Spikes....		249 79	249 79
Stat'ns & wareh's	55,732 99	34,854 99	90,587 98
Track, labor laying...		1,402 61	1,402 61
Wood & water stations	35,987 71	30,163 71	74,151 32
Total....	\$576,663 00	\$387,232 60	\$963,895 60

THE BRIDGE OVER THE ALLEGHENY AND OTHER RIVERS.

The principal expenditures by the Chief Engineer have been for the completion of the new wrought iron Bridge over the Allegheny river, and the South branch of the Chicago river, the addition of ten stalls to the engine house at Crestline, grading for new coach shop, and new line in Allegheny City, and the new line at and near Wallace Run, including the filling for the ravine at that place; also at Hog Creek, near Lima, Ohio, and at Deep River, near Hobart, Indiana; completing six additional station buildings, hitherto reported in progress, and commencing the erection of four others, and completing and bringing into use eleven new water houses. The completion of the Allegheny river bridge is a great relief to the anxiety heretofore experienced by the managers of your property, on its account, in connection with a possible interruption of the Company's business by reason of its liability to destruction by fire. The present structure is a double track bridge, the superstructure of which is built wholly of wrought iron excepting the floor beams and bed-plates, and the nine spans of which it is composed have an aggregate length of 1,172 feet, being little less than a quarter of a mile, and has cost, including additional masonry, \$540,000, of which \$139,787 84 has been charged to ordinary repairs, that amount being the estimated cost to renew the bridge on the original plan of the so-called "Howe Truss." The existing structure was designed by Mr. John B. Jarvis, the late Chief Engineer, assisted by Mr. F. Statuper, one of the present engineers of the Company, who has personally superintended its erection and is known as the latticed girder plan with verticle stiffenings. It combines great strength with simplicity of construction, and will rank among the important works of the kind in the United States. Your Board is not aware of any other in the country, although the plan is extensively used, in modified forms, on the German, Italian and Russian Railways.

The bridge over the South branch of the Chicago river is also an important structure, and was completed in time for the opening of spring navigation. It was rebuilt of wrought iron after the "Pratt Truss" plan, with Linville and Piper's improvements. It is a single track bridge, 227 feet long, and \$78,500, one-half of which was borne by the Chicago and Alton Railroad Company, who use it in common with this company.

It will be noticed that considerable expenditure has been made for station buildings, although not so much as the needs of the road would warrant. The deficiency in this respect is still great, especially West of Crestline, and large outlays are still necessary to meet the growing demands of the public, and to conduct the business of the company with economy. The Chief Engineer and his assist-

ants have, in the work committed to them, exhibited professional skill as well as judgment and economy, and you are referred for fuller details of expenditures in this department to the report of the Chief Engineer, which will be found both interesting and instructive.

ROAD EQUIPMENTS.

The expenditures for new work and equipment by the General Superintendent has been mainly on the latter account. Of the locomotives added eight were purchased of Messrs. Baldwin & Son, of Philadelphia, and one built at the Company's shop will compare favorably, both as regards cost and quality, with those purchased at outside works. Two new coaches, with five compartments, each of which will accommodate six persons, have been built at the Company's shops at Fort Wayne, according to plans originated by the Company's Master Mechanic. These coaches are intended to be run through between Jersey City and Chicago without change, and to be used as both day and night cars, and were put permanently in service in December last. They have recently been sold to the Central Transportation Company, the owners of the sleeping coaches at present running between Chicago and Philadelphia and Jersey City. The experience thus far had with them would seem to indicate their success, as they combine increased comfort with privacy, and are admirably adapted to families or parties making long journeys. The Central Transportation Company propose adding four more to complete the requisite number for the line.

Besides these coaches, six new baggage cars have been added to the passenger equipment and one hundred box, one hundred stock and one hundred flat cars, one caboose and one market car to the freight equipment. The total expenditure for additional equipment was \$450,752 76. This portion of your property now consists of the following: Locomotives, 199; first class coaches, 93; second class coaches, 26; baggage cars, 28; mail cars, 7; express cars, 18; paymaster 1; director's car, 1; box freight cars, 1,157; stock cars, 542; flat cars, 885; market cars, 6; caboose cars, 94; tool cars, 8.

ST. LOUIS, ALTON AND TERRE HAUTE RAILROAD.

The relations of this company with the connecting roads and lines has not been materially changed during the past year, excepting an arrangement for the working of the St. Louis, Alton and Terre Haute Railroad for a period of ninety-nine years, jointly with the Indianapolis and Cincinnati Railroad Company, and the several companies owning the three roads between Indianapolis and Erie, Pennsylvania, the companies agreeing to work the road are to pay thirty per cent. of the gross earnings until they reach \$2,000,000 per annum; and twenty-five per cent. of the gross earnings which exceed \$2,000,000, and less than \$3,000,000 per annum, and twenty per cent. out on all gross earnings over \$3,000,000 per annum guaranteed to the St. Louis, Alton and Terre Haute Railroad Company a sum of \$450,000 a year under the arrangement. The condition of their property at the time that the arrangement was made was such as to require some advances on the part of this and the other companies to put the track and equipment in a condition so as to realize profitable results. This is being done and will be continued to some extent during the current year, after which it is believed that the road will yield profit to the companies working it.

The object of your Board of Directors in entering into the arrangement for working the St. Louis, Alton and Terre Haute road was to harmonize all interest East of Indianapolis in the working of the single line of road from Indianapolis to St. Louis, in such a way as to give to the several roads and lines East of Indianapolis their several fair and equitable proportions of the business East from St. Louis by this route, and at the same time remove all temptation from the parties in an effort, each for itself, to get an exclusive contract of the single railway line West of Indianapolis. For nearly a year previous to the consummation of the arrangement, each of the lines of road North and South of your road had been engaged in efforts to obtain exclusive control West of Indianapolis, the effect of which, if accomplished, would have been to cut this company off from all St. Louis business, excepting by the way of Chicago. When, therefore, the plan was suggested to your Board of Directors to join with all the other interests in an arrangement for working the line between Indianapolis and St. Louis for the common benefit, on an equitable basis, it seemed so eminently to the interests of this Company, as well as to all, that they did not hesitate to commit this Company to the plan. Unfortunately, before the final signing of the papers, and the formal taking possession of the property, the Pennsylvania Railroad Company withdrew from the arrangements, for reasons which the other parties were not and have not yet been able to appreciate, and consequently they were unwilling to adopt them, and thus break the pledge entered into by them with the St. Louis, Alton and Terre Haute Railroad Company. It is hoped (and it is very desirable) that the Pennsylvania Railroad Company will yet join in the arrangement, and thus harmonize all interests as was originally designed.

GRAND RAPIDS AND INDIANA RAILROAD.

The managers of the Grand Rapids and Indiana Railroad Company, whose road is to connect with your road at Fort Wayne, have completed and brought into use during the past year, twenty miles of road, and have a large force at work on the forty-eight miles lying between Kalamazoo and Grand Rapids, Michigan, which, it is expected to complete and bring into use this year. The completion of this road from Fort Wayne to the Straits of Mackinaw, through the best portion of the State of Michigan, will add largely to the business of your road.

AMERICAN CENTRAL RAILROAD.

Your Board had hoped to be able to inform you in this report that the American Central Railway Company had completed some portion of their road during the year. But owing to the European parties, with whom they had contracted, failing to comply with their engagements, the whole of the year was lost in the prosecution of their work. Relying now more upon the local means and energies of the country, as well as upon new European parties who have come into the enterprise, the executive officers express confidence that the work will now go rapidly forward to completion. This road is to be built on a line practically East and West, from Fort Wayne to Omaha, five hundred miles in length.

PITTSBURG AND CONNELLSVILLE RAILROAD.

The legislative restrictions upon the Pittsburgh and Connelleville Railroad Company have recently been removed, so that the only delay in the completion of that road to Cum-

berland, and thus with the Baltimore and Ohio Railroad, make the shortest route from Pittsburg to tide water, will be in obtaining the pecuniary means to accomplish it. As the Baltimore and Ohio Railroad Company has the controlling interest in the stock of the Pittsburgh and Connelleville Company, and owns the 180 miles at the Eastern end of the line to Baltimore, which will be greatly benefited by the new business brought upon it by the completion of the road to Pittsburg, she will doubtless take immediate and efficient steps to effect the completion of the ninety miles of unfinished work between Connelleville and Cumberland. The marked characteristic in railway policy the past year has been to the aggregation of capital and roads, and this policy is likely to continue through the current year. Within certain limits the policy is well enough, both for the interest of stockholders to secure permanent incomes, and for the public to bring leading avenues under such unit of management that they can work with greater efficiency and economy, and thereby better serve the purposes of the public.

THE POLICY OBSERVED.

The objectionable feature to this aggregation is the rapidity with which the controlling interest in these great corporations change ownership without consulting the wishes or interests of minority holders, and sometimes without any consideration of public policy. Your Board of Directors have avoided all such alliances and combinations, excepting in the case of the St. Louis, Alton and Terre Haute road, heretofore noticed, and which cannot be regarded as of the character just described. The greatest harmony and active co-operation exists in all the various departments of the road, thereby developing to the fullest extent the capacity of the property, and causing it to yield the largest income from its business at the rates which were obtained. To the General Superintendent and his chief officers this result is primarily due, and the Board also desires to commend the subordinate officers and employees generally for the faithful manner in which each, in his respective sphere, discharged his duties.

Respectfully submitted by order of the Board of Directors. GEO. W. CASS.
President.

RESOLUTIONS.

On motion of Wm. Thaw, Esq., of Pittsburg, the following resolution was adopted:

Resolved, That the report of the Board of Directors of the operations of the railway for the past year, be approved, and that the incoming Board be requested to have the same published in the usual form, and distributed among the Stock and Bondholders.

Wm. S. Hickok, of Ohio, offered the following, which was adopted:

Resolved, That when this meeting adjourns it will adjourn to meet at such time and place as may hereafter be designated by the President, on notice of ten days, to be published in the usual manner for the purpose of considering any detailed estimates which may be submitted by the Board of Directors for additional improvements or for other purposes, and of determining to what extent and in what mode the shareholder will provide the means therefor by increase of capital stock or otherwise.

The meeting then adjourned.

ELECTION OF DIRECTORS.

The stockholders then went into an election

for a Board of Directors for the ensuing year, when the following named gentlemen were unanimously chosen:

J. F. D. Lanier,	New York.
Louis H. Meyer,	
Samuel J. Tilden,	
J. Edgar Thompson,	Penn'a.
G. W. Cass,	
Springer Harbaugh,	
J. L. Dawson,	Ohio.
Kent Jarvis,	
R. R. Springer,	
Hon. Jno. Sherman,	Indiana.
Jesse L. Williams,	
Pliny Hoagland,	
Wm. B. Ogden, of	Illinois.

Bridging Western Rivers.

LETTER FROM JOHN A. ROEBLING.

The following interesting letter has just been received by a gentleman of this city:

TRENTON, N. J., March 13, 1868.

DEAR SIR—You desire me to give an opinion on the subject of bridging our large Western rivers for railroad and common traffic. This subject appears to be little understood, even by those who are most interested in navigation; and since legislation is but an expression of public opinion, it must be wrong and imperfect, so long as public opinion is erroneous on this subject. Parties who were watching the interests of navigation heretofore, kept only one point in view, viz: Sufficient elevation for the free passage of high smoke-stacks. They always objected to draws, but they were willing to accept narrow spans, not as a matter of choice, but rather of necessity.

The widest draws are at best intolerable nuisances, and should never be permitted where it is at all possible to avoid them. Where there is a heavy traffic over the bridge, and also on the river, both interests will suffer from draws. While the draw is open nothing can pass over the bridge, and *vice versa*. But the greatest objection to draws is the danger to navigation. Witness, for instance, the draw in the Rock Island bridge, over the Mississippi river, which has been a great nuisance ever since this bridge was built. The large pivot pier which supports the draw offers a serious obstruction to the current, which, in high water, is so much and so powerfully deflected, that it is almost impossible for steamers to steer clear of danger. Every draw in the country demonstrates its own nuisance, more or less.

It is evident that there must be a compromise between the interests of free navigation and those of land traffic; but it appears to me that from this compromise draws should be excluded by common consent, because they are equally dangerous and objectionable to navigation as well as to bridge travel.

Railroad men may insist upon draws as a necessity on our Western rivers. But in order to pass trains over a high bridge and steep grades, all that is wanted is a stationary engine and a wire rope to assist the train over the rise. In other words, treat the bridge like an inclined plane, and draws will be unnecessary.

The general question as to how wide or narrow the spans of bridges should be on our Western rivers, is so important and involves so many issues, that it is deserving of a most thorough consideration. Are we not in dan-

ger for want of a proper understanding of this subject, and consequently for want of proper and comprehensive legislation, of inflicting the most serious injury upon the future navigation of these great national highways?

We owe it to our posterity to anticipate the future wants of commerce; at any rate we have no right to willfully or ignorantly obstruct it. During the next century the population of this country will have reached three hundred millions. And who can estimate the vast internal commerce which will then be carried on through the channels of our great Western rivers? The development of the coal trade alone will very soon justify the expenditure of sufficient capital to slackwater the Ohio river from Pittsburg to Louisville, for the purpose of obtaining sufficient depth of water throughout the year. This trade alone will, during the next century, expand to one hundred millions of tons annually. And how is this vast mineral wealth to be transported? Certainly not in the old-fashioned flat-boat, but in well-built barges, as is already done, and towed up and down by powerful steam tugs. Not only coal, but all kinds of produce and merchandise will be carried in this manner, and at such rates that no railroads can compete with it.

The same practice of navigation which prevails on the Hudson river now, will, after a while, be introduced on our Western rivers. Large tows, acres in extent will be towed down. This mode of navigation will become general, because cheap freights are a necessity everywhere. And now let me ask the question: Will the future river interest put up quietly with the nuisance of draw-bridges and narrow spans? When the Ohio river shall be crossed by hundreds of bridges, and when the floating tonnage will be estimated by the hundred millions, shall this vast interest be forever subjected to the obstructions created by the numerous piers, narrow spans or draws?

On a former occasion I have expressed the opinion that no bridge should be allowed to be constructed over our Western rivers, with spans of less than five hundred feet in the clear. Bridge-builders and engineers generally will object that such spans are impracticable for railroad traffic. But the Niagara bridge has forever settled this question, and its span is over eight hundred feet. Such bridges are no longer questions of practicability, but simply questions of cost.

On the lower Ohio, and on the Mississippi and Missouri, another important issue is involved in this question, and that is, the safety of foundations. The bottoms and banks of these rivers are composed of alluvial material and fine floating sand. By the action of high floods the channels are constantly being changed, and the river bed is scoured out in places to a great depth, sometimes fifty to sixty feet. Now, if the river is obstructed by numerous piers, and divided into narrow spans, through which the water is forced, you will readily perceive how much the scouring action of the floods will thereby be increased. No bridge with narrow spans is safe in these rivers without rock foundations. The Rock Island bridge and the Clinton bridge over the Mississippi, are located where the river-bed is hard and rocky. But at many other points, no rock will be found at a less depth than fifty to one hundred feet. But such deep foundations are very expensive, and it will be found more economical to decrease the number of piers and increase the length of spans, than *vice versa*.

I will close this long communication by repeating that a general act should be passed

by Congress for our Western rivers, forbidding the use of draws, fixing this minimum of clear span of 500 feet, with an elevation in the center of the river of no less than forty feet above high water.

Respectfully and truly yours,
JOHN A. ROEBLING.

Distances to Washington and Baltimore from Pittsburg—The Future of Washington City.

Pittsburg to Cumberland, via Pittsburg & Conn. R.R.	149 miles.
Cumberland to Point of Rocks, via Baltimore & Ohio R.R.	109 "
Point of Rocks to Washington, via Metropolitan R.R.	42 "

Total from Pitts. to Washington, 300 "

Pittsburg to Cumberland, via Pitts. & Conn. R.R. 149 |

Cumberland to Baltimore, via Balt. & Ohio R.R. 178 |

Total Pittsburg to Baltimore via Cumberland 327 miles. |

Pitts. to Marysville via Pennsylvania R.R. 242 |

Marysville to Baltimore, via Northern Central R.W. 91 |

Total Pittsburg to Baltimore via Harrisburg 333 miles. |

Difference in favor of route from Pittsburg to Baltimore via Cumberland, over route via Harrisburg, 6 miles.

Difference in favor of Washington over Baltimore by route from Pittsburg via Cumberland 27 miles. |

As the Ohio Central Railroad is operated under lease by the Baltimore and Ohio R. R. Co., the latter will, doubtless, throw out a branch from the Pittsburg and Connellsville Railroad to Washington, Pennsylvania, there to connect with the Hempfield Railroad, and thereby to reach Wheeling as well via Connellsville as over its main stem via Grafton!

The Pittsburg and Connellsville Railroad, in connection with the Hempfield Railroad, opens from Baltimore to Columbus, via Wheeling, a line much shorter than any connection which can be made by the Pittsburg and Connellsville Railroad at Pittsburg. And as the Baltimore and Ohio R. R. Co. operate the Ohio Central R.R. from Columbus to Wheeling, the deeper significance of the Connellsville route is its connection with the West via Wheeling, not via Pittsburg. From Baltimore via Cumberland, Connellsville, Washington, Wheeling, and Columbus, the route is shorter to Chicago than from Baltimore to Chicago via Pittsburg. And the sequel will show that in the matter of the Pittsburg and Connellsville R.R., Pittsburg has been used to "pull the chestnuts out of the fire" for the ultimate benefit of Wheeling!

In sooth, in time not remote, the so-named Pittsburg and Connellsville Railroad may possess most consequence as a line between Washington city and Wheeling; for Washington, Georgetown and Alexandria, all nestled together in the lap of the Potomac, are in a broad commercial sense one community, and jointly will contain a larger population than equal area elsewhere, on the waters of the Chesapeake.

Washington city is nearer than Baltimore to the Ohio river at Pittsburg, at Wheeling, at Parkersburg; and when the Virginia Central Railroad route (under the name of the Chesapeake and Ohio Railroad) shall have been

opened through to the Ohio River down near the Kentucky line, and connections are made therewith leading direct to Cincinnati and Louisville, then will the metropolitan aspects of Washington city (with Alexandria for its port) command national attention and consideration.

The great southern mail route from Washington via Lynchburg, Bristol, Knoxville, Chattanooga, to the Mississippi river at Memphis, with its connections north and south, is a route commanding influence. So also is the route due south via Fredericksburg, Richmond, Petersburg, Weldon, etc.

Washington city is already a *point d'appui* in railroad passenger matters, for Washington is a common destination from all the States and Territories; the political pole of a hemisphere; the seat of national power; the centre of government patronage; the focus of cosmopolitan society; and withal a magnificent city, favored in its rural environs and blessed in its agricultural surroundings. Washington is destined to development into the magnitude and greatness of a metropolis. Moreover, Washington, with Alexandria for its port, in common with Richmond and Norfolk, fills a prominent place in the grand plan of Virginia's communications; and as these communications are extended west across West Virginia to reach the communications of Ohio and Kentucky—as they must and will be—then will Washington be stimulated by contact and intercourse with the buoyant bounding West, over routes direct from the Potomac to the Ohio.—*Mining Reg.*

ACT OF THE NEW JERSEY LEGISLATURE FOR THE RELIEF OF THE ERIE RAILWAY COMPANY.—The following is the text of the act passed by both branches of the New Jersey Legislature, and approved by the Governor, to enable the Erie Railway Company to establish offices and transact its business in that State:

"An act to enable certain corporations more effectually to transact their business in the State of New Jersey.

"SECTION 1. Be it enacted by the Senate and General Assembly of the State of New Jersey, That where any railroad corporation which has been created by the laws of any other State or States has, by any law or laws passed by the Legislature of this State, been authorized to hold property and exercise franchises and privileges in this State, it shall be lawful for the directors of such company elected in another State to hold their meetings in this State, and exercise all the powers and franchises of such company within this State, so far as it may be necessary to transact any business of such company.

"SEC. 2. And be it enacted, That it shall be lawful for such company to have an office in this State for the transfer of stock, and the officers and agents of such company shall be authorized to transact the business of such company in this State.

"SEC. 3. And be it enacted, That this act shall be a public act, and shall take effect immediately."

This act, it is said, renders the injunctions granted by Judge Burnard, restraining the company from issuing new stock, of no avail, as under the new charter the issue of a large amount of new stock is authorized.

When stocks are low-priced people hesitate to buy; when high-priced they rush after them.

Puddling Iron by Machinery.

The proprietors of the Northfield Iron-works, near Rotherham, have had in operation for the past three weeks a machine for puddling iron, which has proved most satisfactory. The machine is the invention of Mr. John Griffiths, of Derby, and is the result of a number of experiments made during a long practical experience in the management of puddling forges. The apparatus is not complicated nor costly, can be placed on any ordinary furnace, and will not only work double the quantity of iron usually operated upon, and finish it better, but it will do it at a less percentage of waste. It is not expected to supersede entirely human skill and exertion. The judgment, attention, and practical experience of the puddler, we are informed by Mr. Griffiths, will always be required so long as the present system of making iron shall last; but this apparatus will lessen very much the mere physical toil now required in the process. The workmen at Northfield have taken to it wonderfully, finding that it does better both for them and their masters than they could themselves. The furnace is charged in the ordinary way, "but so soon as the melting moment comes, and the hand-work of keeping the iron curds and whey continually stirred arrives, when the puddler should begin to strain back, muscle, and nerve, and perspire from every pore of his naked skin, he coolly puts his long iron rake or poker into the hands of a long iron bar, with a rest that does duty for his hands, and which hangs suspended in front of the furnace, turns on the steam, and immediately the iron bar begins puddling with a measured turn, twist, and poke, which works the iron quite clean from the bottom and out of the jams of the furnace, and puddling it about into the ball condition that renders it agreeable to the shinglers." From the time the heat was charged yesterday to getting out the first ball was one hour and fifteen minutes, and the saving of coal is considerable. There are ten balls in the heat, all of which shingled first-class. At the ordinary furnaces the men were stripped to the skin, and appeared jaded and worn out, while those engaged at the machine wore their waistcoats and braces, and were not in the slightest degree distressed. The machinery is thus described by persons professing to have a thorough knowledge of the details:

On the top of the furnace-plates two cross-bars are fixed, and these support a circular bed-plate over the highest point of the arch of the furnace. A vertical shaft is supported by the bed-plate; and the lower end of the shaft passes through the bed-plate, and carries at bottom a pulley, by which rotary motion is given to the shaft. On the shaft, a short distance above the bed-plate, is another plate of the same size as, and parallel to, the bed-plate, and the other plate is loose upon the shaft. The same plate is supported on the bed-plate by means of spheres or balls rolling in a groove in the bed-plate. The plate loose on the shaft, or the movable plate as it may be called, receives a reciprocating rotary motion through the quadrant. To the movable plate a jib is jointed, which jib is set about midway between a vertical and horizontal position, and projects about 18 inches beyond the furnace-door. To the projected end of the jib a bar or hanger is suspended, the lower end of the hanger being jointed to the puddling tool or rabble. At the top of the vertical shaft is a crank, and a horizontal connecting-rod from the crank is jointed to

the hanger about two feet from the point where it is suspended from the jib. A bevel-toothed wheel is fixed on the vertical shaft a short distance below the crank; and this wheel gears another bevel-toothed wheel of larger diameter. The latter is fixed on one end of a horizontal shaft, working in bearings on a movable plate. On the other end of the horizontal shaft is a pinion which works into a hollow curved rack, fixed to the cross-bars which carry the machine. This rack is of the form of a quadrant, and is situated in the horizontal plane. An opening is formed in the quadrant, through nearly its whole length, and both the upper and lower edges of the opening are provided with teeth. The pinion in traversing the rack passes first along its lower edge up to the end, and returns along the upper edge down the other end to the bottom, and so on, the pinion being guided by a plate situate between the upper and lower rows of teeth. In this way the rotary motion of the shaft is made to communicate a reciprocating motion to the movable plate. The action of the machine is as follows:—Motion being given to the vertical shaft, the puddling tool is worked backwards and forwards across the furnace by means of the crank and connecting-rod. The pinion working in the double quadrant rack communicates a reciprocating motion to the movable plate and the jib jointed to it, and by the combined motion the puddling tool is made to travel up and down and across the furnace, and the iron is stirred very nearly in the same manner as by the manual operations of the puddler.—*London Mining Journal.*

The receipts of the Western Union Railroad Company for the week ending March 31:

	1866.	1867.	Inc.	Dec.
Freight.....	\$11,683 92	\$5,763 22	\$5,320 70	.....
Passengers.....	4,898 50	4,983 25	\$15 25	.....
Express and Tel.....	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$16,707 42	\$10,541 47	\$6,164 95	.....

Receipts from January 1, to March 31:

1866.....	\$126,316 04
1867.....	103,137 39
Increase.....	\$23,178 67

HOLDERS OF FREE PASSES AT THEIR OWN RISK.—In the Supreme Court of this State, Chief Justice Beasley, recently, gave a decision in the case of Kinney, administrator, vs. Central Railway Company, in which it is decided that where a party holding a free ticket, containing a clause that the company would not be liable for injury or accident, was killed by an accident upon the road, said clause was a legal contract between the deceased and the company, and no action could be maintained for damage by his administrator.—*Phillipsburg (N. J.) Democrat.*

RUTLAND AND BURLINGTON RAILROAD BONDS. In answer to enquiries from the bondholders whom they represent, the Trustees state that the Court of Chancery of Vermont has issued a strict injunction against the transfer by the Trustees in possession of any of the property in their hands, and against the payment, from the Trust Funds, of any dividend upon the preferred stock of the so-called Rutland Railroad Company; and that the dividend now being paid is from the funds raised upon the personal credit of individuals in the interest of the new corporation organized by the Second Mortgage Bondholders.

WESTERN NORTH CAROLINA RAILROAD.—The State Treasurer of North Carolina has issued an order for \$1,342,000 in State bonds, to be delivered to the Western North Carolina Railroad Company. These are new bonds, and the State is liable for a further issue of \$400,000, which the Treasurer is notified will soon be required. These are issued under acts of the Legislature.

THE NEW YORK CANALS.—*Albany, April 1.*—It is understood that the Canal Commissioners have determined to open the Eastern Division of the Erie Canal on the 20th inst., and the Middle and Western Divisions, May 1. The Black River and Champlain Canal will be opened on the 1st of May.

The foundation stone of the bridge to cross the Mississippi River at St. Louis, was laid on the 25th Feb., in presence of a large number of citizens.

PROPOSALS.

KNOXVILLE & KENTUCKY RAILROAD.

PROPOSALS FOR THE GRADATION and Masoury of the Nineteen miles of this Road not yet under contract, extending from a point two miles south of Elk Gap to the Kentucky line near the town of Boston, will be received at this office until the 24th day of April next.

The profile and specifications for this section, which includes four Tunnels, varying from two hundred and fifty to seventeen hundred and fifty feet in length, with other heavy work, can be seen at the Engineer's Office in Knoxville, after the 14th of April.

The Company reserve the right to reject all bids.
For further information address,

ADRIAN TERRY,
Chief Engineer, &c.

KNOXVILLE, TENN., March 26th. 1868.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT.

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

CINCINNATI, O

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

Bills Lading,

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AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as any establishment in the country.

JNO. L. WILSON, Master of Transportation.
L. M. COLE, General Ticket Agent.
JNO. W. BROWN, General Passenger Agent. } Dec. '87.

R. W. CARROLL & CO.

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BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

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Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race.

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

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J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
O. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indiana at
Aug. 2, ff.]

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STEAM SYPHON PUMP

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Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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48 Dey Street,
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VERY CHOICE

Oil Lands

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Kentucky & Tennessee,

FOR SALE BY

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THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G.W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

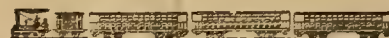
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:40 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburgh 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:30 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:42 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:30 p. m.; Easton at
1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

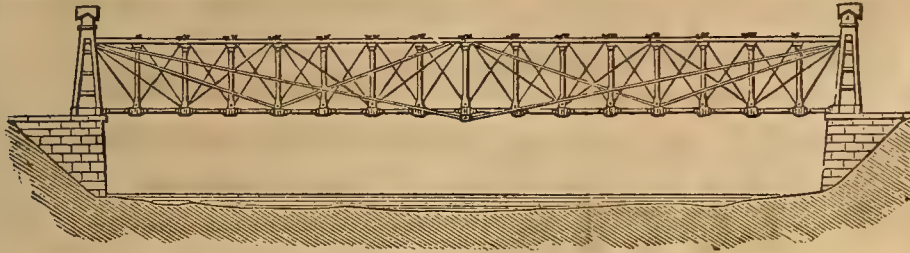
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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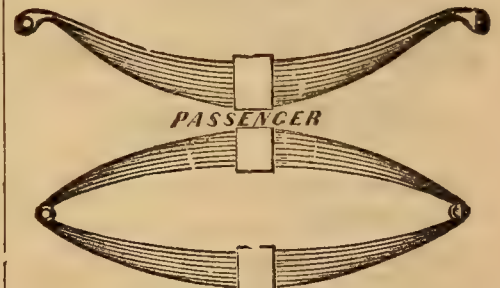
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TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

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Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	6 45 A. M.	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

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	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

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5 THROUGH TRAINS DAILY, (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.50 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.

Lawrenceburg Accommodation..... 10.10 am 8.35 am

Cornersville and Cambridge City..... 4.00 pm 9.15 am

Lawrenceburg..... 4.45 pm 2.20 pm

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J. F. RICHARDSON, Superintendent.

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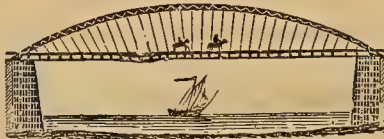
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On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, APRIL 16, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
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SUBSCRIPTIONS—\$3 Per Annum, in Advance.

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WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:30 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:40 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:50 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:30 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:40 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 P. M.
Lexington Express.....	2:00 P. M.
Falmouth Accommodation.....	6:30 P. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Results of Railway Extension.

We have before us a pamphlet on Railway Extension, by Mr. R. DUDLEY BAXTER, read before the Statistical Society of London, and a very interesting pamphlet it is. In the course of this paper he develops the extraordinary fact, that England has given or offered four hundred and forty millions of dollars as subsidies for railroads in India. This fact is startling; but when we look into it, the prize is worth the money. The whole object of this vast expenditure is to bring India cotton to the seaports, and make it cheap. The great fall of cotton which took place last year in this country, was due largely to this fact, and the effect of it will be that cotton will fall in this country to the minimum of former years; and will this country be able to compete with India cotton at all? We have long supposed, that this must be the ultimate result. No doubt the continuance of slavery might have enabled the American planter to maintain a competition for some years; but, in our opinion, the time must have come, when either America must lose the cotton market, or that American labor must come to prices of European laborers. As it is, the railroads of India are the greatest blow ever struck to the production of American cotton. However that may be, it is certain that American cotton must hereafter be sent to market at the lowest rates.

Mr. Baxter gives a number of Tables to show the progress of European and American Railroads; and the results are marvelous:

The statistical comparison stood thus at the end of 1865:

RAILROADS COMPARED WITH AREA AND POPULATION.

Country.	Railway Miles open.	Sq. Miles per Railway Mile.	Population per Railway Mile.
England and Wales.....	9,251	6½	2,186
1. Belgium.....	1,300	8	3,025
2. United Kingdom.....	13,289	9	2,216
3. Switzerland.....	777	19	3,237
4. Prussia and Germany (except Austria).....	8,509	20	3,525
5. North United States (except Kansas, Nebraska & Oregon).....	24,883	25	801
6. France.....	8,134	26	4,607
7. Holland.....	372	29	9,066
8. Italy.....	2,309	41	9,064
9. Austria.....	3,755	63	9,375
10. Spain.....	2,721	67	5,991
11. Portugal.....	419	87	8,555
12. South United States.....	10,300	92	1,025
13. Canada.....	2,539	136	97
14. India.....	3,186	287	42,512
Total of the 14 countries.....	82,495	.....	.....

But England has a much greater proportion of double lines, and a larger number of trains on each line; while on the other hand, Belgium and other continental nations have lower fares and give greater accommodation to third and fourth class passengers. Both parties have something to learn—they to admit the principle of competition and increase the number of railways; we to provide cheap conveyance to the masses, without the clumsy device of excursion trains.

This Table represents the United States as having 35,000 miles of railway in 1868. Most probably, we have 40,000 miles now. By

comparing the miles of railroad with area only, it is easy to show that England has the largest proportion of railroads; but when we come to compare by population, it is a very different thing. In comparison with population, the United States have the largest number of miles of railroad of any country in the world, and they are here the most effective, because the country is so vast in extent, that without railroads, its present business could not be carried on. What country in Europe can have such a railroad as our Union Pacific will be? And where can such results be produced, as will be here? The migration of people over our continent, on the lines of railroads and Lakes, exceeds that of all Europe put together. Hundreds of thousands of that migration have gone without railroads. If they are willing to go over this tedious overland route without rail, how many millions will go by rail? That problem is not solved; but, we think the solution will astonish the world.

Another singular fact is stated by Mr. Baxter, that continental nations have made railways a *Sinking Fund*. He says:

The idea owes its origin to the som Brum, semi-Teutonic intellect of Belgium. When the Belgian government in 1834, projected a system of State railways, to be constructed with money borrowed by the State, they provided for the extinction of the loans in fifty years by an annual sinking fund. The amount borrowed was nearly £8,000,000 sterling, and the whole will be paid off in 1884, after which date the whole profits of the State lines, 352 miles in length, will become part of the revenue of the nation. But so good an investment are these lines that their present net income is £525,000 a year, and is increasing at a rate which promises in 1884 a net revenue of £960,000, a sum which will be sufficient to pay the interest on the whole national debt, now £26,000,000. Besides this, the conceded lines, 1,000 miles in length, will become amortized and become State property in 90 years from the beginning of their concessions, and the profits on a capital of more than £13,000,000 will then be available toward the State revenue.

This system was copied by France, and imitated from her by the other Latin nations, Spain, Portugal, and Italy, as well as by the non-Latin States of Austria and Holland. All these countries, at the end of various terms of 99, 90, and 85 years will practically pay off a large portion of their national debt. Improvident Spain will pay off about £40,000,000 out of her debt of £164,000,000. Heavily burdened Austria will practically abrogate something like £65,000,000 out of her debt of £250,000,000. Italy will wipe out a large portion of her debt of £176,000,000.

The most extraordinary fact, however, is in relation to France.

As the whole expended capital of French railways represented by shares and debentures, is £233,000,000, it follows that the total annual sinking fund paid by the French companies for the redemption of that sum is less than £300,000. The result is marvelous, that for £300,000 the French nation will acquire, in less than 99 years, an unen-

cumbered property of £233,000,000 sterling. But this is not all. The railways represented by that £233,000,000 sterling produced in 1865, a net revenue of about £12,500,000. Before 1872, further railways will have been completed, which will be amortized at the same rate as their parent lines, and will produce before many years a net income of £4,000,000, making a total net income of the French railways £16,500,000. But the total charge of the French national debt in 1865, was only £16,000,000. *So that France has now a system in operation which, in less than 90 years from the present time, will relieve the country from the whole burden of her national debt of nearly £500,000,000.*

If to the idea advanced in this paper (RECORD) of aiding the Pacific Railroads, by advancing greenbacks for their First Mortgage Bonds were adopted, an enormous sinking fund might be created out of these mortgages, and we now know enough of what the traffic of these roads will be, to know that the 1st mortgage bonds of these companies will not only be perfectly secure, but will be worth par in money. All the interest therefore, if no more, will be clear gain to the Government. The principle of economy is much better understood in France, than it is in this country. The French sometimes startle us with financial schemes, which seem entirely speculative and uncertain; but in the end they are found safer than the English schemes, and to be in fact, founded on correct principles of economy. We have already mentioned the extraordinary subsidies of the English railroads in India. Indeed, what is going on in India, is one of the great phenomena of the world. India, as governed by the English, is about 1,800 miles in extent, by 1,500 miles in breadth, and contains a population of near two hundred millions of people. Within a few years it became obvious to the British Government, that if possible, they must raise up a rivalry cotton field to that of America, and when our civil war came on, it became a necessity, and hence that vast subsidy of which we have spoken. India furnished the cotton field of the very best character; but this was mostly inland, and how to get at it was the question.

Mr. Baxter says:

The extremes of the empire were united, and roads were cut through the great agricultural and producing districts. The East Indian Railroad Company has now under its management 1,310 miles of railway, constructed at an expense of \$100,000,000, and is the longest line of road in the world under one company. The Great Indian Peninsular road will be 1,233 miles long when completed, and next year it will be open for traffic along its entire length. In 1868, from Calcutta to Bombay, a distance of 1,458 miles, there will be an unbroken railroad communication. The branch lines connecting with the main stems are of great extent, and will cost as much money as the main roads. To show the progress of Indian railroads it may be stated that it is only fourteen years since the first line was opened in that country. At the present time there are 3,200 miles in operation, and

next year a thousand additional miles will be completed.

This development of railroads in British India is of the highest importance as affecting the cotton trade. Formerly we enjoyed a monopoly of the market; now nearly one-half of the cotton manufactured in England is derived from India alone. A late Liverpool circular estimates the quantity of American cotton now on hand and to arrive before December 31st, 1867, at 680,000 bales, while the supply of India cotton for the same period is estimated at 925,000 bales. Without expressing any opinion as to the correctness of these figures, the more important fact for us to remember is, that the manufacturers of England have so altered and improved their machinery as to be able to use in much larger proportion than formerly the shorter India staple, while, at the same time, the quality of cotton from that country has been decidedly and steadily improved, and is being more carefully prepared for market. Judging then of the future from the past, it may be expected to equal the American article at no distant period.

Missouri and its Resources.

We have before us pamphlets both from Missouri and from Minnesota, depicting the resources and the advantages of those States to the immigrants. This is laudable and useful. There is but one range of States beyond the Mississippi, where the States really can be great, because that range exhausts the great body of fertile lands. These States are Minnesota, Iowa, Missouri and Arkansas. In all probability these four will come to be in the very first class of States. They now have more than *three millions of people*, and they comprehend about two hundred and thirty thousand square miles, capable of sustaining three hundred persons to the square mile, with ease. This is nearly *seventy millions* of people, and about double the white population of the United States! Think of that! Yet it is nothing but the picture of something which will most certainly come. The migration to the Pacific and to the mountain territories will not be as great as it has been, except on the lines of the railroads. Most of the immigrants West will stop in the States on the Mississippi, and those States will grow rapidly.

We take up here the pamphlet on Missouri, by Professor WATERHOUSE. It contains a great deal of information, some of which we had not seen before. We shall extract here some facts which are very curious.

1. We notice the INLAND TRADE, with the mountain territories. This contains statistics of passengers, freight and treasure which we have not been able to obtain from any other source:

The Overland Dispatch Company have courteously furnished me with estimates, founded upon their own transactions, of our total commerce with the territories in 1865. These figures do not include the Fort Benton trade.

Number of passengers East and West by overland coaches.....	4,800
Number of passengers East and West by trains and private conveyances.....	50,000
Number of wagons.....	8,000
" " cattle and mules.....	100,000
Pounds of freight to Plattsmouth	3,000,000
" " Leavenworth	6,000,000
Pounds of freight to Santa Fé.....	8,000,000
" " St. Joseph.....	10,000,000
" " Nebraska City	15,000,000
" " Atchison	25,000,000
Government freight.....	50,000,000

Total number of pounds.....	117,000,000
Amount of treasure carried by express.....	\$3,000,000
Amount of treasure carried by private conveyance.....	30,000,000

The Overland Express charge 3 per cent. for the transportation of bullion. This high commission and the hostility of the Indian tribes induced many miners to send their gold East by the way of San Francisco to Panama.

In 1866, the total assay of bullion in the United States was \$81,389,540. Of this aggregate \$73,032,800 came from the Pacific and Rocky Mountain mines. Upon the usual estimate that 25 per cent. of the gold and silver escapes assay, the entire product of the country in 1866 was \$100,000,000. The increase of population in the gold regions, the richness of recent discoveries, and greater activity in mining operations indicate a still larger aggregate in 1867.

In 1866, the Westward traffic of Leavenworth amounted to \$50,000,000. This aggregate includes the Santa Fé trade, whose value last year was about \$35,000,000. The Western trade of Nebraska City was in

	Pounds.
1863.....	16,000,000
1864.....	23,000,000
1865.....	44,000,000
1866.....	30,000,000

The freightage from this point across the Plains, required in 1865, 11,739, men, 10,311 wagons, 10,123 mules, 76,596 oxen.

So great is the length of the overland routes that the trains are able to make but two through trips a year.

The Union Pacific Railroad already extends to Fort Harker. This materially shortens the extent of overland freightage.

	Miles.
Distance from St. Louis to Fort Harker..	508
" " Fort Harker to Denver....	372
" " " " Salt Lake	
City.....	800
Distance from Fort Harker to Virginia	
City.....	1,432

These facts demonstrate more than any language can do; the necessity, and, in the end, the immense profit of Pacific Railroads.

2. The observation made by Professor WATERHOUSE on the prospects of a foreign trade with St. Louis are very interesting. He says:

St. Louis ought to cultivate more intimate commercial relations with Brazil. Prior to our acquisition of Russian America, the area of this country was 500,000 square miles larger than that of the United States. Its present population is nearly 10,000,000. Of its principal maritime cities,

	Inhabitants.
Para contains.....	30,000
Pernambuco.....	80,000
Bahia.....	130,000
Rio Janeiro.....	400,000

The exports of Brazil are coffee, hides, sugar, caoutchouc, rosewood, mahogany, Brazil wood, cinchona, logwood, cotton, rice, sarsaparilla, sassafras, ipecacuanha, cacao, vanilla, cloves, cinnamon, and tamarinds.

In 1856, the value of the commodities imported from Brazil into the United States was

Brazil wood.....	\$32,000
" nuts.....	43,000
Rosewood.....	81,460
Hair.....	138,240
Sugar.....	513,450
India rubber.....	771,320
Raw hides.....	1,930,220
Coffee.....	16,091,700

In 1857, this country imported from Brazil 197,000,000 pounds of coffee, worth \$17,980,000. In the same year, Brazil exported to foreign markets 256,000,000 pounds of sugar.

In exchange for these valuable commodities, Brazil needs lard, pork, hams, flour, pine lumber, agricultural implements, textile fabrics, and other manufactures. These articles are the chief staples of Western growth and production. The Mississippi Valley is able to supply most of the commercial wants of Brazil. St. Louis, as the main distributing point of the West, ought to take the lead in this grand system of mercantile exchanges. A vast commerce must soon spring up between the metropolis of this Valley and the ports of South America. But, at present, our exports to Brazil are entirely disproportioned to our ability to meet the commercial wants of that country. In 1854-55, the trade of England with South America was five times as large as that of the United States.

These observations apply with just as much force to Cincinnati as they do to St. Louis; and it will profit the citizens of Cincinnati to take note of these things.

3. The observations in the culture of the Sugar Beet in the Western States are very interesting. The experiment will be made in the West, and we do not see why it should not be successful.

France and Germany manufacture most of the sugar which they use from beets of domestic growth. This sugar enjoys no immunities. It is secured against foreign competition by no protective tariff. It is subject to the same duties as the product of the tropic cane. And yet it not only sustains itself, but successfully competes with the sugars of Cuba and Java. Of the present crop, 100,000,000 pounds will be exported from France to England. There is no need of going to Havana for our sugars. Our Western prairies can equal the saccharine riches of the Indies. They yield as fruitful crops of the sugar beet as France or Germany. Analyses made at Chicago, and at Washington by the Agricultural Bureau, show that the American beet contains as large a percentage of pure sugar as the European beet. It has also been ascertained that the American beet can, in high latitudes, be preserved through the winter uninjured. A company with a capital of \$160,000 has purchased 2,000 acres of land in Northern Illinois for the purpose of raising beets and manufacturing sugar. The experi-

ment will certainly succeed, if the managers are careful to procure proper machinery, skillful labor and scientific supervision. The quantity of beet sugar which the West is capable of producing may be calculated from the estimated crop of foreign countries in 1865:

	Pounds
Holland.....	10,000,000
Poland and Sweden.....	30,000,000
Belgium.....	55,000,000
Russia.....	100,000,000
Austria.....	190,000,000
Zoll Verein.....	370,000,000
France.....	510,000,000

The aggregate.....1,265,000,000

is more than one-third of the annual consumption of Europe. In 1866, the sugar crop of France was 540,000,000 pounds.

A cultivation of the sugar beet commensurate with the area adapted to its growth would add hundreds of millions of dollars annually to the wealth of the West.

The Newport Railroad Bridge.

In our issue of Feb. 13, when we published the first announcement of the organization of a company to build a railroad bridge over the Ohio River at this point, our paper was the first Journal that pointed out the real objections to the original plan of the corporations. This seemed to have attracted the attention of the movers in the enterprise, and they very materially modified their plans, by increasing the height of the bridge flooring and dispensing with the proposed draw. Even this, however, did not prevent, what at the time was easily foreseen would necessarily result, the persistent opposition of steamboat men, and merchants interested in river commerce, although the modification of the plans of the Bridge Company at the outset, was a very large concession.

We want it distinctly understood that we are most decidedly in favor of the Bridge, and, if necessary, we would like Capt. Bos MADDOX, when called upon in court, to testify as to the necessity for and propriety of granting a tavern license, to be located on the Newport and Alexandria Turnpike, took his oath that "in his opinion there ought to be a tavern every ten feet." We think all streams should be bridged wherever the traffic demands it. Yet engineering and mechanical skill has arrived at such perfection, that it is just as easy to erect structures that will not be objectionable, as to put up those that will either create constant strife, or be a tax on the cost of navigation. As we stated in our article of Feb. 13, passenger traffic will, as far as practicable, be absorbed by the railroads, while the tendency of the traffic on navigable streams must be to do the great bulk of business by large fleets of barges towed by steamers of great power, but of cheap construction; thereby making it neces-

sary to secure the largest possible amount of sea room, consistent with proper safety and consideration for the lives of passengers in the construction of the bridge.

We were not surprised at the very decisive action taken by the Chamber of Commerce on this subject, and hope that it will lead to some general legislation in reference to bridges, not only over the Ohio, but over all other large streams in the West, so that while one interest may be compelled to put up an expensive structure, others from local legislation may not have the opportunity of creating the very impediments against which the action of the Chamber has been so pointedly directed.

The question of first cost of a structure of this character, should not for a moment be entertained or allowed to weigh a feather against permanent or continuous injury to commerce; and it would be better to have no bridge at all, than to erect one about which there could be the least doubt as to its permanence, durability or safety. We have already too many temporary structures, and too few guards for the protection and safety of human life.

Tax on Passengers of City Railroads.

"Many persons having refused to pay more than five cents fare on the city railroad cars, on the ground that the time fixed by the Legislature during which the companies were allowed to charge the additional cent had expired. Inspector Dilks yesterday instructed the Police Captains to caution the men under their command not to arrest any person refusing to leave the cars after having tendered five cents fare, unless the conductor making the complaint would leave his car and accompany the officer and prisoner before the nearest police magistrate."—*N. Y. Tribune, 7th.*

"Under the decision of the Supreme Court in this State, (Pennsylvania) the Councils of the city of Philadelphia have authority to impose taxes on city passenger railroad companies, by ordinance; and this authority ought to be exercised in a way to largely benefit the treasury of the city corporation."—*Mining Register.*

All illegitimate taxes are onerous, and heget infinitely more trouble than they are worth. The true source of revenue for a city treasury is the property within its corporate limits. City railways are either a public convenience or a public nuisance; if the latter, they can readily be taxed out of existence, as property. If, however, it is desirable to have such institutions, there is no more justice or common sense in city treasuries levying black mail on every passenger compelled to ride in their cars, than there is in taxing hotels for every guest that registers his name on their books, as a source of revenue, or keeping a police force on every street corner to collect imposts for the privilege of walking the streets and breathing the air.

Chicago and her Railway Progress.

THE *Western Railroad Gazette*, of Chicago, furnishes us with the following glowing picture of the influences that have created the past, present and future prospects of that flourishing city.

The amount of territory of which Chicago is now the undisputed metropolis, is about four times as great as it was five years since, and each succeeding year adds to our number of tributary railroads, our miles of track and available commercial territory. The past three years have witnessed the completion and active prosecution of the following leading lines west of Lake Michigan: the Peninsula Division of the Northwestern, the extensions of the same road, from Boonesboro to Council Bluffs and to Sioux City; the St. Paul & Pacific Railroad to St. Cloud; the line from McGregor to St. Paul; the Winona & St. Peter Road to Waseca; the Dubuque & Sioux City Road from Cedar Falls to Iowa Falls; the magnificent work of the Union Pacific Railroad from Omaha to Cheyenne, a distance of 515 miles; the Rock Island line from Brooklyn to Des Moines; the Burlington & Missouri to Osceola; the Des Moines Valley Railroad to Des Moines; the line from Cameron to Kansas City; the splendid enterprise of the Union Pacific line, E. D., to Coyote, 336 miles; the St. Joseph & Council Bluffs Line, (nearly complete); and the line from Bloomington to Jacksonville. Various others of minor note might be cited, or of roads less directly tributary to this city. The number of miles of railroad built west of Lake Michigan within the past three years sums up a grand total of two THOUSAND miles.

With so magnificent a record of things accomplished in the past, there are at this time more railroad enterprises in progress or determined upon, *than ever before, in the interest of Chicago*; the most prominent of these are as follows: The Madison & Winona extension of the Northwestern; the St. Paul & Superior City Road; a line from this city to Elkhorn, Wisconsin; the continuation of the Rock Island Road from Des Moines to Council Bluffs; the Burlington & Missouri from Osceola to the same point; a road from Des Moines to St. Joseph; one from Winona to St. Paul; the two grand rival lines pointed toward the Pacific coast; one from Cheyenne to Denver; the two lines pointing southward from Kansas city and from Lawrence; one from Calmar to Sioux City; and one from Mason to Shawneetown, Illinois, besides various others of less certainty or importance. Eastward from Lake Michigan much less has been done, not so much, perhaps, in opening up new territory as in improving our connections on lines already established—a work of equal importance to this city.

The value of these enterprises, in the present and in the future, is incalculable to Chicago, once the child of the railway world, has risen to the queen. It is only necessary now for a railroad to be pointed toward her, to insure its stock paying roundly. The magnificence of her future, however, depends upon her maintaining her supremacy as the railway centre of the country, a position she can easily hold. With her railroad policy skillfully guided in the future as in the past, it is scarcely possible to paint her future in colors too bright for the coming reality.

It is not to be supposed for a moment that all the means requisite to construct these vast lines of railway is furnished by the business men of Chicago, not at all; but the active minds that give direction to these enterprises are working, with a singleness of purpose that is unprecedented, for the aggrandizement

and future prosperity of that city. The difference between the railroad policy of Chicago and Cincinnati, is too apparent to bear comparison; hence, we shall not undertake to draw one that would be *odious*, but will merely remark that while the Cincinnati system of railroads embodies a few one-horse roads, and they mainly tributary to the grand trunk systems of other great commercial centres, the net work that surrounds Chicago, extends by the thousand miles, and renders every foot of ground through which they run tributary to the city from which they diverge.

Michigan Southern Railroad.

The Tribune says, that we publish the following extract from the forth-coming annual report of the Michigan Southern and Northern Indiana Railroad Company, setting forth the policy of the company and its results:

The stock and debt of the road are as follows:

Common stock	\$10,059,400
Guaranteed stock	586,800

Total stock	\$10,646,200
Funded debt	9,038,640

Total	\$19,684,840
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Since the payment of a dividend on the common stock, paid March 1, 1865, the policy of the direction has been toward such a disposition of the earnings as would make the property valuable to those whose interest therein was of an investment character. The interest of the permanent stockholder has been kept steadily in view, and the temptation to prematurely resume the payment of dividends, has been resisted. This resistance was not always an easy task, two influences combining to increase the difficulties of delay. The natural impatience of stockholders to realize income from their property, and the desire of parties holding stock merely on speculation to profit by the impetus, a dividend might give to the market for the stock combined to urge upon the management an early resumption of dividends.

The direction has, however, steadily maintained the policy of putting the road-bed and track in good condition, increasing the strength and improving the quality of the equipment, and adding necessary depots and station accommodations. Also, of relieving the finances from the burden of floating debt and of claims that threatened the company with vexatious litigation and heavy payments. All these, so preliminary to the payment of dividends, and to be accomplished at least in so far as they involved the expenditures that might be classified as for construction, without adding to our liabilities either of stock or bonded debt, necessarily the net earnings were drawn upon for the purpose, and to the exclusion for the time being of dividends upon the common stock.

In pursuing the policy indicated during the past three years, after first satisfying those claims for interest, rental, &c., which precede the common stockholders claim for dividends, the residue of the net earnings has been annually applied to the enlargement and improvement of their property.

These expenditures, for construction so to speak, have been during the three years as follows:

New building and depot grounds	\$526,484
New equipment	484,038
New track	817,950
New stone bridges	178,794
Union Stock Yards	100,000

Total	\$1,372,266
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The improvements enumerated have gone far toward raising the property to the desired condition of permanence and enlarged capacity, with their resulting cheapness in operating and increase of earnings—a condition justifying the expectation of an early resumption of cash dividends, with a reasonable certainty of their being regularly maintained thereafter; also, warranting the expectation that the stockholders may soon have represented to them, in some form, the sum invested in these additions to their property. The Direction, while under the necessity of delaying dividends, have never been insensible to the propriety of expectations entertained by stockholders of realizing income at the earliest practicable period, and receiving all the profits earned, when the liabilities would bear the increase involved in the payment.

Beside the amount of earnings invested in improvements and additions to your property as previously stated, net earnings have been annually applied by the Commissioners of the Sinking Fund to the extinguishment of the bonded debt. The amount thus applied from the creation of the fund to date is \$1,310,000. For this application of profits the stockholders may reasonably expect a representation when the distribution will not involve a departure from the sound financial policy which it has been and still is the aim of the management to pursue. That is to say when the increased business of the road will warrant such an addition to the aggregate liabilities as would result from such a division of past profits.

The amount to the credit of income for these undivided profits may be properly stated as follows:

Profits invested during the past three years in construction and new property	\$1,372,266
Total profit invested in the Sinking Fund (of which \$426,000 was contributed during the past 3 years)	1,310,000
Amount of money not derived from sales of stock and bonds, but from earnings, applied to extinguishment of guaranteed stock and guarantees during the 3 years (see post)	99,819
Cash on hand—clear surplus, see tables 8 and 9	439,977

Total	\$3,272,062
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Of which \$2,388,062, is the accumulated surplus earnings of the past three years.

Of the burdensome claims before referred to as pressing upon the company in March, 1865, the heaviest was the guaranteed stock, then amounting to nearly three millions, with the addition of claims for back dividends, thereupon raising the aggregate to a sum exceeding four and a half millions of dollars. During the three past years, this stock has been so far extinguished that but \$586,800 remains outstanding upon only \$186,200, of which are there any unsettled claims for back dividends. Notwithstanding the decision of the Massachusetts Courts, mentioned in our last report, whereby the litigant for back dividends, was defeated, another guaranteed stockholder has sued the Company in the New York Supreme Court for a like claim. Whatever the result of this suit may be, the amount of unsettled claims is now so small as to deprive the question of the importance it once possessed, and render its consideration of no practical value in reviewing the financial condition of the Company.

The cost of the extinguishment of the guaranteed stock and of the claims thereupon, and of Detroit, Monroe and Toledo Railroad stock effected during the three years was met by issues of common stock and bonds, principally in 1865 and 1866, as previously reported to you in detail. For the amount of earnings money applied to this purpose see ante.

As the time for resuming payment of divi-

dends is believed to be approaching, it has been thought proper to lay before the stockholders, the foregoing brief summary of the financial operations since the last dividend was paid, in order that they might estimate more correctly the present condition and value, and the future prospects of their property.

To this end we may add further, that during this period the amounts paid as current expenses have more than maintained the value of the property, extraordinarily large sums having been paid for this purpose. For instance, there have been laid down 331 76-100 miles (20,030 tons) of new and rerolled iron, amounting to 57 per cent of all the iron maintained by the company, including side-tracks, and 395 87-100 miles (953,824) of cross ties, or 68 per cent of all in track, costing nearly \$2,000,000.

Had the property been allowed to remain in the condition it was in at the beginning of the three years just closed, the surplus of \$3,275,062, previously stated, would have been considerably larger.

In February last the Board authorized the execution of an agreement, which was entered into with the Erie Railway Company, whereby that Company agrees to extend its broad gauge to Toledo, and this Company agrees thereupon to carry the same gauge over its line by third rail, or otherwise, to Chicago.

Estimates, considered reliable, justify the Board in believing that the profits of the increased traffic furnished by the enlarged facilities will greatly exceed that charge for interest on the cost. Therefore it is not in contemplation to apply net earnings to cover the cost of this construction, but to meet it by an increase of liabilities in some form.

Neither our inclinations nor our policy point to an alliance with either the wide or narrow gauge lines, so exclusive as to place us in an attitude antagonistic to the other. On the contrary, we believe that our interests will be promoted by all such enlargements and additional connections as will increase the facilities for interchange of business with both, and improve our business relations with any and all of these lines linking our Great West with the seaboard. Our interests are in harmony with the interests of all the great lines lying between our eastern terminus and the seaboard, and it would be a policy alike illiberal and unwise that would discountenance connections and improvements tending to avoid the evils of breaking bulk and operating to cheapen the cost of transit. With the local growth along our line, and the extension of our Western connections to the Pacific, the future of your property, intermediate trunk line as it is, points to an aggregation of business over its rails that will defy the restrictions so narrow a policy would impose.

PACIFIC RAILROAD OF MISSOURI.—By the recent act of the Legislature of Missouri, this splendid enterprise has finally been relieved of its oppressive debt, and passes into the hands of its present owners for the consideration of five millions of dollars, or a little over \$16,000 to the mile. One condition of the sale is that within two years the gauge shall be reduced to five feet eight and a half inches.

This change inaugurates a new era in the history of this important line, and may be regarded as one of the many triumphs of the narrow over the broad gauge. Expensive as this change, may be, it will prove remunerative in the end, and in fact, it had become a foregone necessity without the stipulation in the transfer. The road is now gaining in business every month by the extension of its great feeder, the Union Pacific Road, East Division, which is already built to Coyote, 650 miles from St. Louis, making a bee-line for Denver city.

Cincinnati, Hamilton and Dayton Railroad Company.

We publish to-day, says the Cincinnati Gazette of April 15th, in our advertising columns, a notice to the stockholders, of a dividend declared yesterday, by the Board of Directors of this company. The dividend is for eight per cent. payable in stock. This will be the last stock dividend to be made by this company, as the amount now divided will use up the fraction of its unissued capital; which properly belongs to the stockholders, to represent a much larger amount of net earnings used in construction.

We are indebted to the Secretary for the following statement, showing the earnings and expenses of the road for the past year, the net result of which shows that a dividend of more than ten per cent. has been earned. The working expenses amount to about 57 per cent., and are 10 per cent. less than the average of first class roads.

The showing is certainly a very favorable one, and will doubtless prove quite satisfactory to the stockholders. The company is now practically out of debt, having assets which, at their present market value, more than equal their liabilities. Contrasted with the previous year, the earnings show an increase, with a diminution of working expenses.

The road has been maintained in its usual good condition, and with the exception of the Lockland disaster, operated with little or no damage to persons or property. No road in the country has its equipment in better order.

The travel upon the road is very large, requiring seven trains a day each way, with from five to seven passenger coaches. Its freight traffic continues to increase, both locally and in connection with its various lines to the East, North and Northwest.

The C., H. & D. Company has heretofore aided many of its connecting roads by subscriptions to stock and use of its credit. This was necessary both to increase and secure business; and although the stocks which they have subscribed for may not have returned dividends, the increase of business from the roads aided, gives a large and satisfactory return, fully indicating the policy heretofore pursued with regard to connecting roads.

We understand, however, that it will be the future policy of the company to incur no further liabilities for connecting roads. With a road located through the most densely populated and richest section of country in the West, two important connections at Hamilton and four at Dayton, leading to most of the important cities of our country, it would hardly seem necessary for the company to expend anything more except for extending their double track and furnishing additional facilities of sidage and depots as they may be required.

In one particular the company may be deemed extremely fortunate. The Directors have had, from the first commencement of the enterprise, a proper appreciation of the amount of business that was to reach our city, over their road, through the valley of the Great Miami, and the consequent growth of our city. It will be remembered by many that the Directors were considered wild, in locating their depots, so far from the centre of business, and in appropriating so much land for railroad purposes. Experience has shown that no more land was obtained than necessary, and that its location is now near the centre of population of our city.

The same facilities for railroad business could not now be obtained, in a suitable position, for less than five times what these have cost the company.

The C., H. & D. Company has maintained a first class financial credit from its earliest

history. It has never failed to meet all its liabilities, both large and small, even through the trying periods of 1854-5, the almost universal failures of 1867, and the financial reverses of later periods. Besides paying promptly its bonded interest, without a single failure, it has, on the average, from the time the first subscription of stock was paid, made a fair return to its stockholders; and especially so in view of the fact that during that long period it has had to make large expenditures to keep pace with the growth and security of business.

For the past year it has paid its dividends in stock, its net earnings being required for construction. The amount expended for construction and equipment largely exceeds the amount of stock paid out in dividends, and the stockholders have no reason to complain on this score.

Before another dividend day, it is believed the securities held by the company can be disposed of and the balance of floating debt discharged, so that cash dividends may be resumed in October next.

We know of no road whose future bids fairer to serve the interests of our city, and give a surer return to its builders and owners, than the Cincinnati, Hamilton & Dayton.

OFFICE OF THE C., H. & D. R. R. Co.,
CINCINNATI, April 14.

To the Board of Directors:

GENTLEMEN:—I herewith submit a statement showing the earnings and expenses of the Cincinnati, Hamilton & Dayton Railroad, for the year ending March 31, 1888:

Am't of gross earnings	\$1,327,839 05
Am't of operating expenses	747,682 78
Leaving for in't on bonds, etc.	\$580,156 27
Applied as follows:	
General interest...	128,175 38
	27,770 23
State taxes	\$35,096 09
es --	12,997 74
	48,073 83
National tax-	
Insurance, &c.....	5,000 00
Sundries, profit and loss	3,120 48—
	212,136 62
Balance	\$368,016 36
Deduct Government tax on net earnings	18,400 81
Balance	349,615 54
Equal to 10 per cent. on capital stock	326,080 00
Leaving a surplus of	\$23,535 59
Respectfully submitted, F. H. SHORT, Sec'y.	

CHICAGO, ROCK ISLAND & PACIFIC R. R.—Messrs. Clark Durant, Thomas C. Durant, Charles W. Durant, David Dows, and Thomas T. Sturgis, having resigned the directorship of this road, the following named gentlemen were elected in their stead: William F. Coolbaugh, J. W. Drury, George C. Campbell, E. A. McNair and B. F. Allen. John B. Drake was elected to fill a vacancy. The re-organized Board of Directors now stands as follows: John F. Tracy, John B. Drake, and William F. Coolbaugh, Chicago; Oliver Charlick, David Crawford, Jr., and Francis H. Towes, New York; Robert A. Forsythe, Newburgh; N. B. Curtis, Peoria; J. W. Drury, Rock Island; George C. Campbell, Ottawa, Ills.; E. A. McNair and Ebenezer Cook, Davenport, Iowa; and B. F. Allen, Des Moines, Iowa.

The New Free Railroad Law of Pennsylvania.

An Act to authorize the formation of railroad corporations.

SECTION 1. *Be it enacted*, That any number of citizens of Pennsylvania, not less than nine, may form a company for the purpose of constructing, maintaining and operating a railroad for public use in the conveyance of persons and property, or for the purpose of maintaining and operating any incorporated railroad already constructed for the like public use, and for that purpose may make and sign articles of association, in which shall be stated the name of the company, the number of years the same is to continue, the places from and to which the road is to be constructed or maintained and operated, the length of such road, or as near as may be, and the name of each county in the State through, or into which it is made, or intended to be made, the amount of capital stock of the company, which shall not be less than ten thousand dollars for every mile of road constructed, or proposed to be constructed, and the number of shares of which said capital stock shall consist, and the names and places of residence of a President, and not less than six or more than twelve Directors of the company, who shall manage its affairs for the first year and until others are chosen in their places; each subscriber to such articles of association shall subscribe thereto his name, place of residence, and the number of shares of stock he agrees to take in said company; on compliance with the provisions of the second section of this supplement, such articles of association shall be acknowledged by at least three of the directors, before some officer competent to take acknowledgment of deeds in the county where the principal office is designed to be located, and may be filed in the office of the Secretary of the Commonwealth, who shall indorse thereon the day they were filed, and record the same in a book to be provided by him for that purpose; and thereupon the said articles of association shall become and be a charter for the said company, and the persons who have so subscribed such articles of association, and all persons who shall become stockholders in such company shall be a corporation by the name specified in such articles of association or charter, and shall possess the powers and privileges following, to-wit:

First. To have succession by its corporate name, or the period limited in its articles of association.

Second. To sue and be sued, complain and defend, in any court of law or equity.

Third. To make and use a common seal and alter the same at pleasure.

Fourth. To hold, purchase and convey such real and personal estate as the purposes of the corporation shall require, not exceeding the amount limited in the articles of association.

Fifth. To appoint subordinate officers and agents as the business of the corporation shall require, and to allow them a suitable compensation.

Sixth. To make by-laws not inconsistent with any existing law for the management of its property and regulation of its affairs, and for the transfer of its stock.

SEC. 2 Such articles of association shall not be filed and recorded in the office of the Secretary of the Commonwealth until at least nine thousand dollars of stock for every mile of railroad proposed to be made is subscribed thereto, and ten per centum paid thereon in

good faith, and in cash to the directors named in said articles of association, nor until there is indorsed thereon or annexed thereto an affidavit made by at least three of the directors named in said articles that the amount of stock required by this section has been in good faith subscribed, and ten per centum paid in cash thereon, as aforesaid, and that it is intended in good faith to construct or to maintain and operate the road mentioned in such articles of association, which affidavit shall be recorded with the articles of association, as aforesaid.

SEC. 3. A copy of any article of association filed and recorded in pursuance of this act, or of the record thereof with a copy of the affidavit aforesaid indorsed thereon, or annexed thereto, and certified to be a copy by the Secretary of the Commonwealth, or his deputy, shall be evidence of the incorporation of such company, and of the facts therein stated.

SEC. 4. When such articles of association and affidavit are filed and recorded in the office of the Secretary of the Commonwealth, the directors named in said articles of association shall, in case the whole of the capital stock is not before subscribed, keep open books of subscription at their general office, and at such other places as they may deem expedient, to fill up the capital stock of the company, giving such notice as they may deem expedient, and shall continue to receive subscriptions until the whole capital stock is subscribed; at the time of subscribing every subscriber shall pay to the directors ten per centum of the amount subscribed by him in money, and no subscription shall be received or taken without such payment.

SEC. 5. Whenever the foregoing provisions have been complied with, the persons named as incorporators in such articles of association are fully authorized to carry into effect the objects named therein, as fully as any corporation heretofore created under any special act of the Legislature, and said corporation thus created shall be entitled to exercise all the rights, powers and privileges, and be subject to all the restrictions and liabilities of the act regulating railroad companies, approved the 19th day of February, 1849, and the several supplements thereto as fully and effectually as if said powers were specially incorporated in said charter; and the company shall commence their proposed railroad, if not more than fifty miles in length, with at least one track, within two years from their organization, as aforesaid, and prosecute the same work with due diligence, and complete and open the same within five years, and shall have an additional six months to complete their road for each twenty five miles more than the fifty miles aforesaid; *Provided*, that the road shall be opened for use, in all cases, when fifty miles in length in track are laid.

SEC. 6. Whenever any railroad company created or incorporated under the provisions of this act, shall, in the opinion of the directors thereof, require an increased amount of capital stock in order to complete and equip their road, and carry out the full intent and meaning of their charter, they shall, if authorized by a majority of the stockholders, at a meeting called for that purpose, file with the Secretary of the Commonwealth a certificate setting forth the amount of such desired increase, and thereafter such company shall be entitled to have such increased capital as is fixed by said certificate. *Provided*, That the original amount of stock and increased capi-

tal shall in no case exceed the sum of sixty thousand dollars per mile.

SEC. 7. That the number of managers of any company incorporated in pursuance of this act shall be a president and not less than six nor more than twelve directors, as shall be fixed by the incorporators thereof, at their first meeting to choose directors of said company, a majority of whom shall be citizens of this Commonwealth.

SEC. 8. The president and directors of any railroad company created under this act shall have power to borrow money not exceeding the amount of capital stock subscribed, and issue the bonds of the company therefor, in such amounts as shall not exceed double the amount actually paid up of the capital stock subscribed, the proceeds whereof shall be actually expended in the construction and equipment of their road, these bonds to be payable at such time not exceeding fifty years after the date thereof, and at such place and at such rate of interest not exceeding 7 per centum as said directors may deem best, and may secure the payment of said bonds and interest by a mortgage on the said road and franchises.

SEC. 9. Any company incorporated under this act shall have authority to construct such branches from its main line as it may deem necessary to increase its business and accommodate the trade and travel of the public.

SEC. 10. Companies formed under the provisions of this act, or chartered under the laws of this commonwealth, shall have the right to construct their roads so as to cross, at grade, the track, or tracks, of any other railroad in this Commonwealth. *Provided, however*, That the cost of making and keeping such crossing in repair shall be borne by the company whose road crosses the track, or tracks, of any other; *And provided further*, That the company whose road crosses the track, or tracks, of another, shall keep at such crossing as many persons as may be requisite, to give the necessary signals to prevent accidents.

SEC. 11. That companies whose roads shall be constructed under the provisions of this act shall have the right to connect their roads with roads of similar character within this Commonwealth, or at the line thereof, upon such terms, as may be agreed upon by those who have the management of said roads; and in case of failure of an agreement on the part of those having the management of said roads, then and in that case either of said parties may apply to the Court of Common Pleas within the jurisdiction, in which said connection is proposed to be made, whose duty it shall be to appoint a jury of three men, who shall determine and fix said terms, which, when approved by said court, shall be conclusive.

SEC. 12. This act shall not be so construed as to authorize the formation of street passenger railway companies to construct passenger railways under, or by virtue of its provisions, in any city of this Commonwealth, nor to authorize any corporation formed under this act to enter upon, and occupy any street, lane or alley in any incorporated city in this Commonwealth, without the consent of such city being first obtained.

SEC. 13. All acts or parts of acts inconsistent herewith, are hereby repealed, so far as they may affect any corporation that may be organized under this act; and the Legislature hereby reserves the right to alter, amend or repeal this act at any time, in such manner, however, as to do no injustice to the incorporators.

Approved the 4th day of April, 1868.

JOHN W. GEARY.

Michigan Southern Railroad.

The Michigan Southern Road for the year ending February 29, 1868, earned, as follows:	
Freight	\$2,725,249 80
Passengers	1,639,107 00
Mails	31,645 4
Express	186,588 00
Rents	22,772 59
Other sources	68,856 20

Total receipts	\$4,747,219 11
Total receipts for previous year	4,673,192 86

Gain	\$ 74,026 25
The operating expenses were	2,866,387 56
Same time in 1867	3,063,705 81

Decrease	\$ 197,318 31
Increase in net income	271,344 56

The per centage of operating expenses to gross receipts was 60½ per cent., against 65½ per cent. in 1867.

The net earnings were \$1,880,831

Less interest on funded debt \$640,516

Dividends on guaranteed stock 68,740

Taxes 138,254

Rent on E and R. Road 30,000

Interest and exchange 2,469

Sinking Fund 151,000—1,031,079

Surplus \$849,752

The sum of \$849,752 upon \$8,813,500 is equal to dividends at the rate of 8½ per cent.

IMPROVEMENTS.

Lands purchased—Toledo, Chicago,

Elkhart, etc. \$31,738 66

Completion Chicago passenger depot 39,938 29

Completion of Chicago freight depot 2,035 90

Completion Detroit passenger depot 7,200 21

Clark Street paving, Chicago 4,877 56

C. and T. connection Track, Toledo 5,946 64

Share new ferry slip, Detroit 4,000 00

Bridge masonry 83,810 26

New buildings and fixtures on the line 15,359 90

Piling bridges replaced by masonry 2,780 00

New side tracks 20,248 90

Changing line and raising grade at Monroe 5,290 88

Total \$223,227 20

New cars 201,850 15

Total improvement 425,077 35

Settlement of back dividends on guaranteed stock (paid in common stock, except \$90) 45,090 00

Premiums paid on conversions, guaranteed stock (cash) 60,240 00

D., M. & T. stock bought in 3,629 67

Northern Indiana first mortgage bonds paid off 4,000 00

Second mortgage script paid 200 00

Floating liabilities, all paid 274,846 04

Worthless assets charged off to profit and loss 5,513 48

Total expended \$818,596 54

Balance on hand, viz:

Cash in New York \$382,513 06

Cash in Chicago 107,463 79

Increase in Working supplies, etc. 67,656 89—\$547,633 74

\$1,366,230 28

The showing is highly creditable to the managers of the company, and proves the ability of the road to pay future dividends equal to those on other roads in its neighborhood. This favorable exhibit has been made in a year of deficient crops, which reduced its earnings in the first half of the year \$240,000. The present prospects of the road indicate its ability to earn ten per cent. for the common stock, with a handsome surplus.

The Chicago and Rock Island Case—A Receiver Appointed.

The following opinion has been rendered by Judge Cardozo, in the case of the 49,000 shares of Chicago and Rock Island stock issued lately:

I shall not follow the counsel over the extended field of discussion in which they indulged on the argument of the motions in these cases. The statement of a very few plain and well recognized propositions is all that is necessary to dispose of the questions really involved. My views may be briefly expressed as follows: *First:* Even if any reflection and examination led me to a different opinion, which they do not, I should not feel at liberty to deny the existence of the jurisdiction which it is sought to have the Court entertain in these actions, since the point has been fully and distinctly decided by the General Term of this court, in *Griffith* agt. *Scott*, cited on the argument. My views accord with that decision, but in any event I should consider myself bound to follow it. In that case Judge Ingraham said: "I think there can be no doubt but that a citizen of the State can maintain an action against a foreign corporation for any cause connected with the recovery of or protection to his property or rights in said corporation." Judge Leonard in the same case held that this Court "has not the power to remove or appoint the trustees or directors of a foreign corporation, but it can enjoin their action when illegal, or when acting fraudulently or unlawfully, if they are personally within our jurisdiction." These remarks are opposite to the present suits, and dispose of the point as to jurisdiction raised by the defendants' counsel. *Second:* The issue of the 49,000 shares complained of was *ultra vires*. Neither the corporation nor its directors had in any view the right to make certificates purporting to represent capital stock, which had not in fact been subscribed and paid for, and to put them in the market as stock and sell them below par. If they might do so, and sell them at a discount of one or two per cent, they might sell them at 50 per cent, or any greater discount. It is not a question of good faith, or of honest intention, or of wise policy, or skillful or discreet management on the part of the Directors; it is a question of power. Every paper issued, purporting to represent stock which had in fact no existence, was a false certificate, and the Directors were not authorized to make false certificates. No such power attaches to their office, and the stockholders have the right to complain that they have assumed a power which was not conferred upon them. These views controlling of the case are so familiar that they do not require the citation of authorities to support them. *Third:* The statute passed by the Legislature of Iowa (Laws of Iowa, 1863, Chap. 13), can not alone ratify the act of the Directors. The State of Iowa has not exclusive jurisdiction over this corporation. The certificates do not purport to represent stock on the original corporation created by the State of Iowa, but assume to represent stock of the consolidated company, consisting of that corporation and the one formed under the laws of Illinois. The latter State, therefore, has quite as much control of the present matter as the State of Iowa. Certainly the act of either alone will not aid the defendants. *Fourth:* I see no reason why any injunction should have issued to restrain the defendants, except so far as the 49,000 illegal certificates are concerned. The transfer of the illegal issue was properly enjoined and the proceeds should be held by the Court to protect the Company against damages in favor of the holders of false certificates, or to enable it to retire them, but nothing is disclosed in the papers which satisfies me that it is either proper or necessary to prevent deal-

ings in the genuine stock, or to interfere with the business of the corporation, except to the extent I have mentioned. *Fifth:* Respecting the motions to attach the defendants, I have only to remark that I do not think that any breach of the injunction has been established by the affidavits submitted to me calling for any present action. *Sixth:* I shall appoint Hugh Smith, esq., the Deputy City Chamberlain, receiver of the proceeds of the 49,000 illegal shares, requiring from him a bond, with surety to be approved, in \$500,000, and directing that each half million of dollars which shall come to his hands as such receiver shall be deposited alternately in the United States Trust Company and the Union Trust Company. *Seventh:* The costs of these motions will be costs in the actions, and abide the event of the same. *Eighth:* An order in accordance with these views, and containing such provisions as may be deemed necessary to carry them into effect, will be prepared by the plaintiffs' attorneys, and presented to me for settlement.

Ordered accordingly.—*Tribune.*

The receipts of the Western Union Railroad Company for the week ending April 7:

	1868.	1867.	Inc.	Dec.
Freight	\$55,545 57	\$4,124 83	\$1,331 74	
Passengers	3,363 40	3,432 00		68 20
Express and Tel.	350 00	320 00		30 00
Mail	375 00	375 00		
Totals	\$9,603 37	\$8,249 83	\$1,421 74	\$68 20

Receipts from January 1, to April 7:

1868	\$135,919 41
1867	111,387 20
Increase	\$24,532 21

The receipts of the Western Union Railroad Company for the week ending April 14:

	1868.	1867.	Inc.	Dec.
Freight	\$7,392 78	\$4,224 08	\$2,568 70	
Passengers	3,101 75	3,499 25		\$37 50
Express and Tel.	350 00	320 00		30 00
Mail	375 00	375 00		
Totals	\$11,219 53	\$9,088 33	\$2,598 70	\$387 50

Receipts from January 1, to April 14:

1868	\$147,122 94
1867	120,395 53
Increase	\$26,743 41

AMERICAN CENTRAL RAILROAD. At a meeting of the Directors of the Indiana, Illinois and Iowa branches of the American Central Railroad, at Fort Wayne, on the 5th inst., arrangements were consummated for the consolidation of the three divisions of the road through the above named States into one organization, to be called the "American Central Railway." The following is the list of Directors of the consolidated line: Geo M. Braggiotti and John E. Cowles, of New York; Gen. G. W. Cass and Hon. Springer Harbaugh, of Pennsylvania; Lot S. Bayliss, Pliny Hoagland and Jesse L. Williams, of Indiana; W F Thomas, James S. Thompson and John S. Thompson, Esq., of Illinois; W. T. Smith and John Bird, Iowa; Henry Folsch, Marseilles, France. Judge Thompson will be elected President. This road will be one of the most important now building in the United States. The line will be five hundred and eighty five miles in length, and by its directness will shorten the route now traversed between New York and Omaha by one hundred and thirty-six miles. Running in an air-line direction from Fort Wayne to Omaha, the Union Pacific and American Central Railways will be but an extension of each other. The construction of the American Central will be, it is understood, commenced immediately, and pushed to completion as fast as money in abundance can do it.

AMERICAN CENTRAL RAILWAY.—Articles of association have been filed in the office of the Secretary of State at Indianapolis for the incorporation of the American Central Railway company, with a capital stock of \$3,000,000, in shares of \$50 each. The proposed road is to run from Ft. Wayne to Macon, Marshall County, Ill., and will pass into or through the counties of Allen, Whitley, Kosciusko, Fulton, Pulaski, Jasper and Newton, in Indiana. The length of the road to the State line is about 120 miles. The directors for the Indiana division are: John S. Thompson, of Illinois, and Lot S. Bayless, Pliny Hoagland, Philo Rumsey, Sol. D. Bayless, Robert C. and William Fleming, of Ft. Wayne.

In order to approach the railway bridge over the Mississippi, connecting Dunleith with Dubuque, the Illinois Central Railway have found it necessary to undertake the boring of a tunnel 900 feet long, through solid rock. This formidable undertaking has been let to the Rock Island contractors, and they have already commenced operations.

PROPOSALS.

KNOXVILLE & KENTUCKY RAILROAD.

PROPOSALS FOR THE GRADATION and Masonry of the Nineteen miles of this Road not yet under contract, extending from a point two miles south of Elk Gap to the Kentucky line near the town of Boston, will be received at this office until the 24th day of April next.

The profile and specifications for this section, which includes four Tunnels, varying from two hundred and fifty to seventeen hundred and fifty feet in length, with other heavy work, can be seen at the Engineer's Office in Knoxville, after the 14th of April.

The Company reserve the right to reject all bids.

For further information address,

ADRIAN TERRY,
Chief Engineer, &c.

KNOXVILLE, TENN., March 26th. 1888.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

FREE!

Fare to Washington City same as to Baltimore.

JNO. L. WILSON, Master of Transportation.
L. M. COLE, General Ticket Agent.
JNO. W. BROWN, General Passenger Agent. } Dec. '67.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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Bills Lading,

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Late Master Car Builder C.H.&D.&D.&M.

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L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen'l. Ft. Agt. C. & I.C. R.R., Indianapolis
Aug. 2, 1886.]

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Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

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STEAM SYPHON WATER-STATION

A locomotive can raise water, with its own steam, to fill
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WITHOUT CHANGE OF
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Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G.W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave	Cincinnati.....	6.00am.....	7.00pm
"	Dayton.....	8.20 ".....	9.15 "
Arrive	West Salem.....	1.40pm.....	4.03am
"	Leavittsburg.....	4.40 ".....	7.30 "
"	Meadville.....	7.05 ".....	10.15 "
"	Susquehanna.....	7.30am.....	10.38pm
"	Paterson.....	2.33pm.....	6.17am
"	New York.....	3.15 ".....	7.00 "
"	Boston.....	6.00am.....	5.00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts. Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

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OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

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A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scripti n, unequalled by any Railway on this continent.

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Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
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CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

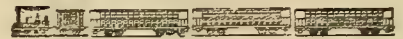
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12:15 p. m.

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton
at 1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

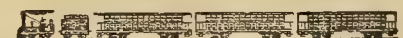
H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO

ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7 00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

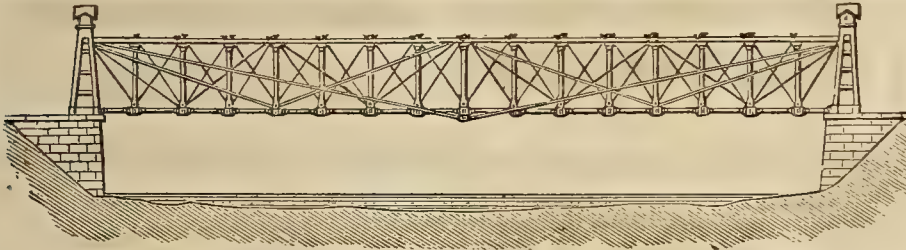
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish or order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

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AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

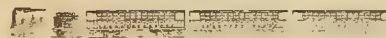
Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits.

Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

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Through to Pittsburgh without Change

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburgh, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
myll Pittsburgh, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES.

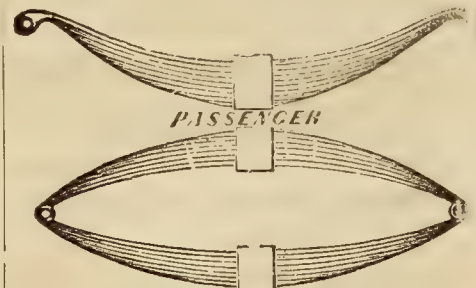
AND—

MACHINERY OF EVERY DESCRIPTION

47 West Front St., Cincinnati.

PERKINS, LIVINGSTON & PONS

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for
Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,
Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac at Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure *through tickets and through checks* to WASHINGTON CITY.

W. P. SMITH, *Master Transportation, Baltimore*
J. H. SULLIVAN, *Gen. Wes. Ag't, Bellaire, O.*
L. M. COLE, *Gen. Ticket Agent, Baltimore.*

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 01 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 30 p.m.	2 10 "	"
Arrive VINCENNES,	5 15 "	6 35 "	"
Leave "	5 20 "	6 40 "	"
Arrive ODIN,	9 35 "	10 30 "	"
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ci,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

G. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI

—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.00 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same. &c.,

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted). 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at 8.25 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, }
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, APRIL 23, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 75 00
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" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express.....	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	2:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:00 P. M.	5:00 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express.....	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION.			
Connersville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.	
Connersville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

RAILROADS to the PACIFIC.

Mr. MORRILL, of Vermont, in discussing the Central Branch Union Pacific Railroad bill remarked, "If we were practicing upon the policy of some of the European Governments of building railroads, holding them and running them at the expense and for the profit of Government, and thereby providing a sinking fund by which the national debt could be somewhat reduced or extinguished in process of time, that might be very well."

It should not be the policy of the American Government to create, any further than is really necessary to conduct to a successful issue the true government machinery, an array of places to be filled by the worn out backs of the political arenas. The list of places and patronage of the government is already too extended for the public weal, and is a fruitful source of corruption and debauchery of the public political morals. Nevertheless it is most undeniably desirable that Government aid should be accorded in the construction of the great highways to the Pacific Ocean, nearly the entire route being through the public domain. The high destiny of the Nation demands that these great avenues for commerce should be opened; the entire world is looking on to see it, and watching with intense anxiety to see the effect that they will produce on the commerce of the hemispheres. If the friends of Pacific Railroads are not mistaken they will work a revolution in the course of trade with China and Japan that would be equivalent to tapping Lake Michigan at Chicago and draining Niagara half dry.

There are, however, other objects to be attained besides the control of this vast commerce; although of itself it is sufficient to give a warrant for their construction, and we think we risk nothing of our reputation in saying that the profits of this trade to the American people will in less than three years after the completion of the roads more than compensate for the entire cost of their construction. It is no small matter, either, to develop the mineral interests of this country and there is but one thing that is hindering it—transportation—when this is furnished all other obstacles will be removed. We might as well talk of Blackfeet, Crows, Sioux, Apaches, or Comanche spreading desolation and terror in the interior of New York, as to expect that they can do it very long after the completion of the grand system of railroads across the continent. The fact is they will soon be remembered as are the Iroquois, the Narragansetts, and the Delawares, in the school boy's history only, a thing of the past. The question of safety to persons and property at the mines will be settled forever, and capital and labor will flow to the mining region with full confidence of security and success, and the annual product of the precious metals in-

creased to an extent that will be more wonderful than was the increase by the discovery of the auriferous fields of California and Australia. Whether wise or not, this will make us the great gold producing nation of the world, and will as effectually settle the question of "in what are the government liabilities payable," as if they were already cancelled.

Again, another object to be attained by the construction of these roads is the development of our vast Public Domain. In this we are unlike any other government; there are no great bodies of land owned by individuals through which these roads must necessarily pass. Private interests are therefore not developed by their construction, and hence private aid to any great extent cannot be invoked. The Public Domain is now inaccessible, and without the means of locomotion must for an indefinite period remain almost valueless. The construction of these railroads, and the collateral roads that will necessarily follow will bring a very large per cent of those lands into the market, and add to the cash value of the *public estate* more than double, yes, quadruple, the entire cost of all the contemplated roads. Hence, we claim that as prudent, farseeing and sensible custodians of a great trust, belonging to the People, it is not only the duty, but interest of the government to thus aid in the improvement of its vast and undeveloped estate.

To meet the views of the honorable gentleman, we will suggest that there is one way in which to accomplish so great a result as the extinguishment of the Public Debt by the construction of these very roads, without the objectionable feature of running them as a *caudal appendage to the government machine*. Instead of issuing Government Bonds to be handled and hawked about the market of the world at a discount in aid of their construction, and also allowing the roads to issue an equal amount of first mortgage bonds on their property which is a prior claim to that of the Government, let no more bonds be issued, *except from the Roads to the Government*; and let all the aid required be furnished by the Government to the Roads in the regular currency of the Treasury, the gentle increase of which at this time would be almost universally regarded as an advantage to the business interest of the country. The amount that would thus be thrown upon the market would be so small and would be so widely diffused that it would "fall like the gentle rain," and would not produce any of the disturbing elements in the market values of goods and products of labor that would otherwise be the case if a similar amount of greenbacks should be issued (as has been suggested) in the purchase of Government bonds now in private hands with which to create a sinking fund. For the aid thus granted the *Government should hold the first and only claim against the Roads*,—first mortgage bonds,—which,

with its products should be sacredly devoted as a SINKING FUND, and which in twenty years would entirely extinguish the National Debt.

PACIFIC RAILROADS.

New York Chamber of Commerce.

We call attention to the following article from the *New York Times*, giving the proceedings of the New York Chamber of Commerce relative to the importance of the construction of the Railroads to the Pacific, and the bearing they will have on the material interests and prosperity of the country. We cannot but believe that the most obtuse and old foggy, stand-still-and-grow-of-yourself antiquarians must perceive the wonderful advantages to us as a nation that must accrue from the construction of these great thoroughfares for commerce and locomotion. We are glad to see by the accompanying proceedings that New York Merchants take a broad and comprehensive view of the subject, and see in the construction of all routes immeasurable advantages to what is now the greatest commercial city of this country, and what will we doubt not, if the enterprises of the age are completed, soon become the largest city of the world. The view taken by the Chamber is, that it is not only on the same parallels with their great emporium that these roads should be constructed, but they should be stretched out "fan-form," so as to embrace as wide an expanse of the Pacific coast as possible. This is the true policy, for while the Central Road will bring them in direct connection with San Francisco, yet the Northern Road will develop a continent—a dozen States—and create a trade that will be new and exhilarating like the atmosphere of the region through which the road will pass; while the Southern Road, with branches to San Diego and Guaymas will furnish the shortest route, with the easiest grades, free from the rigors of perpetual winter and the avalanches of Cisco, and New York will also be from five to seven hundred miles nearer the trade of the States of Northern Mexico and the Islands of the South Pacific, and our whole country will be simultaneously developed.

The *Times* says:

REPORT OF THE COMMITTEE ON THE NORTHERN PACIFIC RAILROAD.

A special meeting of the Chamber of Commerce was held yesterday, Mr. George Opdyke in the chair, to hear the report of the special committee to whom was referred the resolutions urging on Congress the importance of granting material aid in the construction of the Northern Pacific Railroad.

The report, which is very voluminous, gives a description of the territory through which

the road is intended to pass, and its resources, mineral and agricultural, and details the immense benefits that may be expected to result from the establishment of the road. The whole length of the route will be 1,775 miles. The report concludes by recommending the adoption of the resolutions referred to the committee.

Gen. H. Walbridge, in submitting the report on behalf of the committee, said:

In 1850 the Congress of the United States granted such governmental aid to the Illinois Central Railroad as to guarantee the completion of that great work. The policy thus inaugurated has since been steadily pursued, and has been recognized in the platforms of all political parties since that time. Notwithstanding we were engaged in suppressing the most formidable rebellion of ancient or modern times, in 1862 Congress was solicited to extend its aid, by grants of land, in the construction of three great lines of railroad—one central, one southern, one northern—which should develop the resources of the sections through which they were to pass, and indissolubly bind together the political, social, commercial and material interests of the whole country between the Atlantic and the Pacific. To the central line, known as the Union Pacific and California Central, additional facilities were given by the loan of the credit of the National Government in guaranteeing the ultimate payment of the bonds of these companies, by which they have been enabled to prosecute their great undertaking with an energy and success without a parallel in this or any other country. Though this line cannot be completed under three years, so vast is the traffic that has already sprung up along its route, the advances by the government are already more than discharged in the work performed by the company for the Government by the transmission of the mails, munitions of war, troops and other transportation. Under these circumstances the southern and northern lines now feel justified in asking that the same aid which was extended to the central route should be granted to them. In his judgment this aid should be given to both these lines, as demanded by the requirements of their respective sections; but as the committee were only instructed to determine the reasons which warrant the Government in extending the same fiscal aid to the Northern Pacific that has been granted to the central line, he would solicit attention only to the considerations that justify the Government, at this time, in granting the desired aid. By consulting the *Railroad Record* of Cincinnati, a standard and reliable authority, we find that as late as 1852, in all the five great States northwest of the Ohio river, there were but 2,682½ miles of railway in operation, as follows: In Ohio, 1,154; in Indiana, 777½; in Illinois, 296; in Michigan, 427; and in Wisconsin but 50. These States have to-day railroads in operation: In Ohio, 3,400; Indiana, 2,000; Illinois, 3,500; Michigan, 1,200, and Wisconsin 1,000—in all an aggregate of 11,100 miles. We shall trace directly the effect of these railroads in augmenting the population and wealth, as also their effect in stimulating the production of these five States, by noticing their unexampled progress from 1810 to the present time.

POPULATION OF THE NORTHWESTERN STATES.

1810, -----	272,324
1820, -----	792,400
1830, -----	1,470,048
1840, -----	2,924,728
1850, -----	4,523,260
1860, -----	6,926,884
1867, they had increased to -----	8,675,000

But this influence is much greater on the increase of wealth, as deduced from the following statistics of valuation from 1850 to 1865:

Valuation in 1850.

Ohio -----	\$504,726,000
Illinois -----	156,265,000
Indiana -----	292,650,264
Michigan -----	59,787,256
Wisconsin -----	42,056,595

Aggregate ----- \$965,485,114

Valuation in 1865.

Ohio -----	\$1,150,000,000
Illinois -----	900,000,000
Indiana -----	550,000,000
Michigan -----	300,000,000
Wisconsin -----	300,000,000

Aggregate ----- \$3,200,000,000

The increase of population in the period of fifteen years was 90 per cent., but the increase in wealth was over 230 per cent. The following tables illustrate the increase of production in these five States during ten years, the period of greatest railroad increase:

1850.

Wheat -----	bushels, 39,322,404
Corn -----	do 177,320,381
Oats -----	do 35,495,000
Other grains -----	do 3,100,000
Potatoes -----	do 15,600,000

Aggregate ----- 270,838,510

1860.

Wheat -----	bushels, 78,027,000
Corn -----	do 275,292,910
Oats -----	do 50,976,328
Other grains -----	do 10,850,000
Potatoes -----	do 30,400,000

Aggregate ----- 448,546,238

Thus it will be seen that the production has increased more than population, and wealth more rapidly than either. The *Railroad Record* also demonstrates that, reasoning from this data, that if we take the five States and Territories that now compose the Northwest, and the Northern Pacific Railroad should be at once built, in ten years from this time there will be located directly upon its route not less than 1,500,000 population, and an addition of \$500,000,000 in wealth to the taxable property of the country. By no other agency can this result be attained in that space of time except by the construction of this great national enterprise. Our commercial superiority dates from the opening of the Erie Canal, and our ability to control the products of the great States north and west of Lake Erie. Judging by our past experience, in less than two decades the city of New-York is to become the seat of commercial exchange for the civilized world. To guarantee this result we must open the great lines of transit across the continent, and by no single effort can we accomplish greater and more immediate results than by securing, at the earliest day possible, the completion of this great line of the Northern Pacific road. The commercial rivalry of Great Britain is already awakened to the incalculable advantages to her by the construction of a continental line of railway between the Atlantic and Pacific, north of our territory. Nor will the British Government hesitate to grant the requisite governmental aid in the construction of the proposed road, in view of the results that have attended her efforts to open up her East India possessions by the introduction of railroads. Within the last fourteen years, over 3,200 miles of railway have been constructed in India, and, before the close of the present year, an additional thousand miles will be added toward the construction, of which the British Government has guaranteed the interests upon the money invested to the extent of \$40,000,000. All the leading nations of Europe are alive to the commercial necessity of developing their resources

through the agency of railroads. This is emphatically true of Great Britain, France, Germany and Russia. In less than twenty years, through government credit advanced for that purpose, there will be a continuous railroad from Dover to the Bosphorus, from the Bosphorus down the Euphrates, across Persia and Beloochistan to India, and from India to China and Japan. But by wise and liberal legislation, and the granting of the same aid to the Southern and Northern lines that has already been extended by Congress to the Central line, within the next five years we shall have three grand trunk lines of railway traversing this continent from the Atlantic to the Pacific, bringing to this city the trade and commerce of the world.

Mr. Wetmore said there were present Mr. W. D. Ogden of Chicago, Gov. Marshall of Minnesota, and Hon. R. D. Rice of Maine, whom he desired to present to the members of the Chamber. The gentlemen were then presented in due form, and Mr. Ogden was invited to address the Chamber on the subject of a Northern Pacific Railroad, which he did at some length, giving a glowing description of the vast wealth and resources of the West, and of her wonderful increase in wealth and population during the last thirty years. If this road, he said, was opened, gold and silver would pour in from California and the regions round about as they had never done before. Property would, in the next ten years, greatly increase in value, while the actual value of the dollar would decrease. In conclusion, Mr. Ogden said: To construct this road will change the whole order of things in the West. It will, in an inconceivably short space of time, convert these vast plains, now lying waste and unproductive, into fruitful fields; it will supplant the herds of buffalo, elk and deer with countless flocks and herds of domestic animals; it will occupy the streams of water now running waste with manufactories and mechanics' shops, giving comfort and remunerative employment to thousands on thousands of intelligent citizens; it will extract from the mountains untold millions of the precious metals; it will raise and utilize vast amounts of coal that now lie buried and useless in the mines; it will convert the iron and copper ores now reposing in the earth into implements for the use of man, or commodities for commerce; it will change the forests into thousands of new farms for the use, comfort and profit of our people; it will fill the channels of commerce with merchandize, and give additional employment and increased wealth to the busy throng that now crowd our commercial centres; it will induce an increased emigration of the industrial classes from the Old World, and furnish them cheap and comfortable homes; it will terminate Indian wars, and supplant the savage Indian, who now roams over these fertile plains and rich mountains, by an intelligent, industrious, civilized population; and, finally, it will add almost beyond the power of computation, to the wealth and taxable property of the country, and with the development of other portions of the West by other and similar lines of railroad, furnish the means for the payment of the national debt, which now hangs like an incubus upon our people.

The speaker also referred to the liberal policy of the English government in granting aid for the construction of railroads in India, having guaranteed the interest on money invested in these enterprises to the amount of \$440,000,000.

Gov. Marshall of Minnesota, Judge Rice of Maine, and Mr. S. B. Ruggles followed in brief addresses, urging the adoption of the report and resolutions.

They were then adopted, and 1000 copies of the report ordered to be printed, after which the Chamber adjourned.

Cincinnati & Charleston R. R.

CONDITION AND PROSPECTS OF THE BLUE RIDGE RAILROAD COMPANY.

To his Excellency, JAMES L. ORR:

As the Chief Magistrate of the State of South Carolina, and deeply interested as a citizen in the future prosperity of the people of the State, I address you this communication:

The importance of a direct connection of the city of Charleston with the cities of Cincinnati and Louisville, by railway has been so long entertained and so fully discussed, that it would seem superfluous now to advert to it; but the exciting scenes through which the country has passed during the last six years, have obliterated many things from the public mind, and the great changes made by the war in the resources of States and people, render a review of such subjects excusable, if not absolutely necessary.

This "grand iron highway" from Cincinnati to Charleston, in which the Blue Ridge Railroad forms a most important link, originated in Cincinnati as far back as 1835, and was then advocated by such distinguished men as Professor Edward D. Mansfield, Editor of the RAILROAD RECORD, an able paper still in existence, and still the firm friend of this enterprise, Dr. Daniel Drake, Governor Vance, of Ohio, General Hayne, General Taylor, of Kentucky, and many others.

A careful perusal of the reports of committees from Charleston and Cincinnati, and the proceedings of the great Knoxville Convention, attended by delegates from nine States, in 1836, will satisfy every one that the magnitude and importance of this connection between the Western cities and the Atlantic seaboard was as well understood then as now, and was then declared to be the *most magnificent and important public work projected in our country*.

This great scheme, supported by the combined interests of so many States, owing in a great measure to the terrible financial embarrassment, which shortly after its inception swept over the whole country, failed of its grand consummation. But it was far from barren in its practical results. The roads from Branchville to Columbia—from Columbia to Charlotte—from Columbia to Greenville, Abbeville and Anderson—Columbia to Spartanburg, on this side; and the several roads branching out from Cincinnati and Louisville, towards Knoxville, and from Knoxville in that direction, were all but the off shoots of this great enterprise.

The ultimate completion of the entire line was never abandoned. The force of circumstances, and the growing necessities and demands of trade and commerce for direct lines of communication and cheap freights, kept the object always in view.

The State of North Carolina, in January, 1851, chartered the "Tennessee River Railroad Company," to construct a road from where the line of the State of Tennessee crosses the Tennessee river, to the point where the line of the State of Georgia crosses said river; and the State of Tennessee, in January, 1852, chartered the "Knoxville and Charleston Railroad Company, for the construction of a double or single track in the direction of Charleston, S. C."; and the State of Georgia, in January, 1852, chartered the "Blue Ridge Railroad Company, for the

construction of a railroad from the terminus of the North Carolina Railroad, at or near Locust Stake, thence by the way of Clayton, in Rabun county, to intersect the South Carolina Railroad, at Anderson." The Legislature of this State in December, 1852, chartered the "Blue Ridge Railroad Company, in South Carolina, for the purpose of constructing a railroad connection between the "Greenville and Columbia Railroad, and the North Carolina line." By the same Act, the State engaged to guarantee the bonds of the company to the amount of \$1,250,000. Before the grant of this charter, a few patriotic citizens of Charleston, impressed with the importance of establishing this connection between Charleston and Knoxville, took measures for the carrying into effect the object of these several Acts of Incorporation, and for that purpose subscribed, individually, \$549,000, to the stock of the Georgia Company, which was necessary to secure the charter. In 1853, the South Carolina Company applied to the Legislature of this State to grant larger aid, and in a mode more beneficial. The application was not successful; but during the session of 1855, the Legislature, on certain conditions, authorized a subscription of one million of dollars to the capital stock of the South Carolina Company, and pledged the State to guarantee the payment of the bonds of the company to the amount of one million, which were to be secured by a mortgage of the roads, and of all the assets of the several companies in the several States. The company was authorized to secure, by the same mortgage, other bonds, to the amount of one million and a half, thereby giving to these latter a common and equal lien on the mortgaged property, with the bonds to be guaranteed by the State, and making the total amount of the first mortgage bonds to be two million five hundred thousand dollars.

Before the last Act was passed, the City Council of Charleston had, in compliance with instructions from a public meeting of the citizens, subscribed five hundred thousand dollars to the stock of the Blue Ridge Railroad Company in South Carolina, and afterwards, in conformity with the instructions of a subsequent public meeting of the citizens, the City Council assumed the subscription to the stock of the Blue Ridge Railroad Company, which had been made by the individuals before referred to.

In compliance with the requirement of the Act of 1854, all the companies joined in the execution of a Deed of Trust, by way of mortgage, to Messrs. Mitchell King, James Adger, and James Rose, whereby the railroads in the several States, and all the assets of the several companies, are subjected to the payment of the principal and interest of the bonds to be issued by the Blue Ridge Railroad Company in South Carolina not exceeding two and a half millions of dollars.

By virtue of powers conferred by their respective charters, the companies in Tennessee and North Carolina, by deeds, covenanted to transfer to the South Carolina Company, all the corporate rights, powers, and franchises which were conferred by the charters, when the railroad is completed in those States. The principal part of the stock in the Georgia Company being held in South Carolina, secures the control of the road in that State.

Thus when the connection between Anderson and Knoxville is completed by the construction of roads in those States, the South Carolina Company will possess the management and direction of the entire line.

Recent intelligence from Cincinnati indi-

cates that all the lines between that city and Knoxville, will also be consolidated, and be under one management.

In 1853, the President and Directors of the Company entered into a contract with Auson Bangs & Co., who came highly recommended as responsible and competent contractors, to do all the work and furnish all the materials necessary for the complete construction of the road from Anderson to Knoxville:

The cost of the construction was to be paid to them, one-half in cash, one-fourth in bonds, and one-fourth in stock. This was deemed a most advantageous contract for the company, and if it had been carried out, according to its terms, would have secured the entire completion of the work with the means then provided. Although a large amount of different kinds of work had been performed by these contractors, yet the company found it necessary in April, 1856, to dismiss them, and annul the contract.

By the Act of 1854, "to grant aid" to the company, it was provided, in addition to the subscription of one million of dollars by the State, that the State would also guarantee the bonds of the company, to the amount of one million more, on the condition, however, that the company should produce proof to the Governor of such subscriptions, or aid granted, in the States of North Carolina and Tennessee, as would give reasonable assurance of the completion of the road. This condition was satisfactory at the time to the company, because confidence was then reposed in the ability and purpose of Bangs & Co. to perform their contract. If they had done so, the stock and bonds which they were to take in payment of the construction of one-half of the road, furnished an ample assurance that the road could be completed with the means which had been provided. In consequence of their breach of contract, the company could not furnish the required evidence, and hence the State has not, to this time, guaranteed any of the bonds of the company.

In 1859, the State, through the Legislature, directed a further subscription to the stock of the company, of three hundred and ten thousand dollars, for the purpose of completing the road to Walhalla, making the whole subscription of the State to the road, one million three hundred and ten thousand dollars.

Col. Gwynn's (Chief Engineer,) estimate of the cost of the construction of the road from Anderson to Knoxville, 195 miles, is \$7,575,677 00.

THE MEANS OF THE COMPANY,

Which were at first provided for the construction of the entire road, were:

Subscription of the city of Charleston.....	\$1,049,000 00
Subscription of the State of South Carolina.....	1,000,000 00
Subscription in Tennessee.....	250,000 00
" Pendleton R. R.	52,000 00
" State aid to Pendleton Railroad.....	43,500 00
Subscription in Georgia.....	3,600 00
" North Carolina	55,400 00
Tennessee State aid for Iron....	540,000 00
" " " for Bridges	100,000 00
Charleston private subscription	53,000 00
	\$3,146,500 00
Anticipated guaranty of bonds..	1,000,000 00
	\$4,146,500 00

Additional subscriptions in S. Carolina, made in 1856.....	232,700 00
Stock received by Bangs & Co., and other contractors, for work done.....	176,500 00

First Mortgage Bonds of the Company.....	\$4,555,700 00
	1,500,000 00
	\$6,055,700 00

So that whatever reasonable deduction should have been made from the sum total for loss, by insolvency or otherwise, the means originally provided were sufficient for the construction of the road, under the contract with Bangs & Co.

They agreed to take payment, one-half in cash, one-fourth in mortgage bonds of the company, and one-fourth in stock.

Their failure to comply, however, rendered it necessary, even before the war, for the company to ask further aid from the State. The subscription of three hundred and ten thousand dollars to complete the road to Walhalla, heretofore alluded to, was the extent of the additional aid granted.

EXPENDITURES.

To the 1st of September, 1860, there had been expended in construction of the road from Anderson to Knoxville,	\$2,842,258 29
Expended in 1860 and 1861,	445,000 00
	\$3,287,258 29

Table A, which is appended, exhibits a comparison of the several quantities and kinds of work, originally to be done for the construction of the road in the several States of South Carolina, Georgia, North Carolina and Tennessee.

From this table it appears that the grading in South Carolina is more than double the grading in Tennessee, with the same length of road, and is nearly equal to the whole grading in North Carolina and Tennessee—one hundred and twenty-six miles. The tunnels in South Carolina exceed all the tunnelling on the line; while the bridge and arch masonry in South Carolina is nearly equal to all the bridge and arch masonry of the whole road. The estimated cost of the road in South Carolina and Georgia, which is seventy miles in length, and thirty per cent. of the distance to Knoxville, is fifty-eight per cent. of the estimated cost of the whole road.

Table B exhibits, in three columns, the several quantities and kinds of work, originally necessary for the construction of the road, the quantities which were done on 1st of September, 1860, and what remained to be done at that date.

The following statement computed from table B exhibits the per cent. of work, which has been done in South Carolina, Georgia and Tennessee:

	S. CAROLINA.	GEORGIA.	TENNESSEE.
Grading.....	80 per ct.	45 per ct.	30 per ct.
Tunnels.....	66 " "	15 " "	00 " "
Bridge & Arch Masonry.....	74 " "	46 " "	53 " "
Square Drains & Culverts.....	84 " "	75 " "	48 " "

Since this estimate was made, the road has been completed to Walhalla, which would increase the per cent. of grading and masonry in this State.

The amount of work done in Tennessee since 1st September, 1860, is not exactly known, but the road from Knoxville to Maryville, eighteen miles, is very nearly ready for

operation. The State of Tennessee, has, within the last two years, appropriated two hundred and fifty thousand dollars additional aid to this road, and strong hopes are entertained that further aid will be granted, perhaps enough to complete the road from Maryville to the North Carolina line, a distance of thirty-seven miles.

The following estimate, furnished by Col. Gwynn, on 1st September, 1860, will show the cost of finishing the road from Walhalla to Knoxville, in sections:

From Walhalla to Clayton:	
South Carolina portion, (22 miles).....	\$761,218
Georgia portion, (9 miles).....	558,946
	\$1,320,164

From Clayton to Franklin:	
Georgia portion, (8 miles).....	\$175,387
North Carolina portion, (14 miles).....	414,248
	\$589,635

From Franklin to Nantihala, 28 miles.....	899,958
From Nantihala to Tennessee line, 38 miles.....	859,132
From Tennessee line to Maryville, 37 miles.....	879,706
Finishing the road from Maryville to Knoxville, 18 miles.....	307,915

Cost of Finishing the road from Walhalla to Knoxville 1st Sept. 1860	4,586,510
Deduct cost of finishing road from Knoxville to Maryville (nearly completed).....	307,915
	\$4,278,595

Deduct cost of finishing road from Maryville to Tennessee line, which it is hoped Tennessee will provide for.....	879,706
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Balance to be provided.....	\$3,398,889
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INDEBTEDNESS OF THE COMPANY.

Mortgage Bonds issued.....	\$204,000
" " due contractors....	10,000
Floating debt.....	20,000
	\$234,000

ASSETS.

Balance 1st Mortgage Bonds unsued and on hand.....	\$2,286,000
Notes of A. Bangs & Co., secured by deposit of \$29,000 1st Mortgage Bonds	28,500
	\$2,314,500

GENERAL DESCRIPTION OF THE KIND OF WORK TO BE DONE.

The first and most important section is from Walhalla to Clayton. In that distance the mountains are crossed, and all engineering difficulties overcome.

This work, both in South Carolina and Georgia, may be characterized as heavy, and may startle those not accustomed to consider such large aggregates. But when it is considered that the passage of the Blue Ridge is achieved, and when the line is brought into comparison with that of other roads penetrating the Alleghenies, the result will be found so much in its favor, as to excite surprise that the cost is no greater.

The chief cost in South Carolina is incurred between Cane Creek and Chatuga river. On this portion of the road, the Stump House Mountain, with its offshoots, stretch across

the track, two of which, besides the main mountain, are pierced by tunnels, and much cutting and filling is to be encountered.

The large tunnel through the Stump House Mountain, 5,863 feet in length, is now about three-fourths completed, and can be finished by a full force in twelve months. Of the other two tunnels in this State, one of them, the middle tunnel, is pierced through, and the other, the saddle tunnel, 616 feet in length, is about half done.

In Georgia the expensive portion lies between the Chattuga and Clayton. On this section the line passes from Dick's Creek into the valley of the War Woman, and from the War Woman on to the head waters of the Sticco. Having the tunnel through the dividing ridges between these water courses, and being necessarily thrown on a high level, much excavation and embankment is encountered in its ascent up the War Woman and its passage across the streams making into the Sticco. The two tunnels, Dick's Creek and War Woman, are short, and about twenty-five per cent. of the work done. The percentage of the grading, bridge and arch masonry, square drains and culverts, the table on page 22 will show.

On attaining Rabun Gap, two and three-fourths miles West of Clayton, although it is the summit and culminating point of the road, the mountains on all sides are seen in the distance.

The difficulties of the road are overcome, and a campaign country, contiguous to the line, succeeds the bold and rugged features which have hitherto characterized it, and the line passes into the valley of the Tennessee river, upon a level with the Gap. Pursuing this valley in close proximity to the river, it reaches, without further difficulty, the "Locust Stake," a point in the line dividing Georgia and North Carolina.

In North Carolina the road is laid in the valley of the Little Tennessee river, which, taken as a whole, presents a very favorable route. It is remarkable for its freedom from high bounding cliffs, which characterize every water course lying on the Western slope of the Allegheny. The valley is formed of narrow strips of low ground and alternate spaces, where the mountain sides encroach upon the streams. The character of these hill sides is favorable to the object in view. They rarely expose a vertical cliff of rock on which the grading will have to be effected. In order to avoid the circuit of the river at some points, save distance and place the line on more advantageous ground, it was deemed advisable to lay the line through the necks of several bends and cross the river several times.

The passage of the Smoky Mountains, which comprises a distance of twelve miles, three in North Carolina and nine in Tennessee, involves much less expense and difficulty than has been supposed. But one cliff extends into the water, and that is passed by a tunnel of one hundred feet, with approaches involving an excavation of only 3,338 cubic yards. The mountain sides for about five miles present the usual appearance of loose rocks intermixed with earth, in some instances overlying solid rock. For the remainder of the distance they consist almost wholly of sloping surfaces formed of fragments of rock, which have apparently been detached from high points of the mountain, and rolled down in their present position. The grading along these slopes will not be difficult of execution. The road-bed will be formed of the loose rock, which, reduced to a proper size, will be laid with some regularity on the lower side, at

points where such a precaution may be necessary, to protect it from injury from freshets. The railroad in Tennessee, after emerging from the Smoky Mountains, continues in the valley of the Tennessee river, passing alternately through long stretches of low grounds and along the slopes of the hills and mountain sides, which occasionally impinge on the streams; on this portion of the line no difficulty occurs worthy of note. Eleven and a half miles from the Smoky Mountains the line leaves the river, and passes an eligible route, through a rolling fertile country, to Knoxville. The practicability and comparative cheapness of the construction of the whole line from Anderson to Knoxville, have been verified by such distinguished engineers as Mr. Latrobe, Mr. Francis Lackland, Mr. Geo. B. Lythgoe, and Col. Walter Gwynn, all of whom have passed over and carefully examined the entire work.

CHARACTER OF THE WORK.

Regarding this road as of equal importance to any in the country, the Chief Engineer has made all his estimates for a "first class" road.

In the general construction of the road, the material and workmanship has been designed with a view to the utmost stability and permanence.

The masonry is of the description denominated "first class," and the superstructures of the bridges combine a just reciprocal action of timber and iron, giving by their union, great strength and durability.

The railway track consists of a T rail of 60 lbs. to the yard, with wrought iron chairs spiked upon cross ties 8 feet long 7 x 8 inches, placed two feet apart from centre to centre, bedded in broken stone ballast, in North Carolina and Georgia, where liable to be damaged by frost.

Trestle work has been superseded by embankments and permanent bridges.

Upon the whole line of the road, from west to east, being in the direction of the heaviest traffic, there will be no grade exceeding forty-five feet to the mile; and from east to west, being the direction of the lightest trade, there will be no grade exceeding seventy feet to the mile.

The grade, which is a matter of great consequence to the successful operation of all railroads, will compare most favorably with the grades of all other roads passing through a mountainous country. For instance, the grades on the Virginia and Tennessee Railroad going eastward, are sixty-eight feet to the mile; on the Virginia Central Railroad seventy-two feet; on the Baltimore and Ohio Railroad one hundred and sixteen feet; on the Pennsylvania Central Railroad fifty-three feet; on the Sunbury and Erie Railroad fifty-two feet; and on the New York and Erie Railroad sixty feet to the mile. From the brief description here given of the character of the route proposed for this Railroad, and the partial parallel drawn, it must be apparent to all, that by means of such moderate grades, low summit and small extent of mountain region, it might not only challenge a comparison with, but might justly claim pre-eminence over all other lines of railroad communications, whether executed or projected, between the Eastern and Western waters.

CONNECTIONS.

By reference to the map of the road it will be seen that the diversion of the road southwardly, which at first would seem to be an objection, in point of distance, to Knoxville, is in fact an advantage, by its nearer approach

to Chattanooga, which is now a focus of the South Western Railroads. At the confluence of Citico Creek with the little Tennessee River, the road deflects from the river northwardly to Knoxville; Citico Creek is thirty-two miles from Knoxville; Athens on the Georgia and Tennessee Railroad is fifty-four miles south of Knoxville; from Citico to Athens is thirty miles. A branch from Citico to Athens will save fifty-six miles in the distance from Chattanooga to Charleston. A company has been organized for the construction of this road, with State and County aid, and individual subscriptions, nearly sufficient for the purpose.

From Clayton to Ducktown, in the region of the copper mines, is seventy miles; and from Ducktown to Cleveland is thirty miles. The Hiwassa Railroad is chartered and organized for the construction of this road from Clayton to Cleveland.

The Hiwassa Railroad when completed will bring Charleston twenty-five miles nearer to Chattanooga than Savannah is, and one hundred and sixty-three miles nearer than Richmond.

At Knoxville the Blue Ridge Road will unite with the Georgia and Virginia Roads; Charleston will then be forty-six miles nearer to Knoxville than Richmond, and ninety-six miles nearer than Savannah. Both of those Roads will form conduits to the current of trade through the Rabun Gap.

Railroads are finished from Covington on the Ohio River, opposite Cincinnati to Danville, in Kentucky. The Kentucky and Tennessee Railroad is a direct extension of the Blue Ridge Road to Danville and thence to Cincinnati and Louisville. Thirty-one miles of this latter road is now in operation, and the remaining portion to the Kentucky line in such a state of forwardness, that the whole can and will be completed in eighteen months.

The people of Louisville, Kentucky, have not been idle; by the extension and construction of the Lebanon Branch, they are now within thirty miles of the Tennessee line. The people of Cincinnati are thoroughly aroused and have, in the last few weeks, originated measures which will ensure to that city a direct connection with Knoxville, before the Blue Ridge Road can possibly be completed. Hence the necessity for prompt and immediate action on the part of the people of this State to secure the completion of the Blue Ridge Railroad. At Anderson the Blue Ridge Road connects with the Greenville and Columbia Railroad, the projected road from New Market to Aiken and Charleston; also, the contemplated road from Anderson to Hamburg and Augusta. At Hamburg and Augusta the connections are direct with Charleston, Savannah, and by the Port Royal Road, to Port Royal, South Carolina.

ADVANTAGES OF THIS CONNECTION.

It is a misapprehension to suppose that the Blue Ridge Railroad is important only as tributary to the commerce of Charleston. The distance between the western limits of South Carolina and Tennessee, across North Carolina and Georgia, by the Blue Ridge Road, is only eighty-nine miles. Anderson is 195 miles from Knoxville, Greenville is 231, Abbeville is 240, Newberry 275, Columbia 322 miles, Winnsboro 361, Camden 384, while Charleston is 410 miles, over the projected junction of the Greenville and Columbia Railroad with the South Carolina Railroad, between New Market and Aiken; and is 453 miles from Knoxville by the way of Columbia. South Carolina imports corn, wheat, flour,

bacon, lard, tobacco, whisky, salt, lime, horses, mules, and cattle. East Tennessee, Kentucky and Southwestern Virginia produce these articles in excess of the domestic consumption. Before the war, while corn was selling at one dollar a bushel in the country west of Columbia, it could have been bought in Tennessee for twenty cents. Now a large portion of the corn, flour, bacon, lard and whisky, which is consumed in this State, is brought from Cincinnati, by way of Baltimore and Charleston. Hogsheads of bacon may now be seen in the depots of the Greenville and Columbia Railroad and Blue Ridge Road, as far up as Walhalla, which came from Cincinnati. This bacon is carried 383 miles, from Cincinnati to Wheeling, by the Ohio River, when it is navigable, and 245 miles by railroad when it is not. From Wheeling it is carried to Baltimore, 380 miles over the Baltimore and Ohio Railroad; by sea 650 miles, from Baltimore to Charleston, and from Charleston 257 miles to Anderson, and 290 miles to Walhalla; nine hundred miles by water and seven hundred and ninety miles by railroad, being 1,700 miles in all. Or, if the Ohio is not navigable from low water, or being frozen, the carriage from Cincinnati to Anderson is 882 miles by railroad and 650 by water, being 1,532 miles. If the bacon is carried to Anderson by way of New Orleans and Charleston, the distance from Cincinnati to Charleston is more than 2,000 miles by sea and river, and 257 by railroad from Charleston to Anderson. If it be carried from Nashville, the distance is 730 miles by railroad, and more than 600 miles by the Ohio and Cumberland rivers. If from Chattanooga, this distance is 575 miles by railroad and about 700 miles by the Ohio and Tennessee rivers. By no other routes can western produce be brought into South Carolina. By the Blue Ridge Road the carriage of bacon, lard, corn, whisky, flour and tobacco, from Knoxville to Anderson will be only 195 miles. The distance from Knoxville to all the other western districts of the State may be calculated from Anderson.

These Districts will be most benefited by the Blue Ridge Railroad. But by a calculation of distances by the three routes mentioned, compared with the distance of many other districts by the Blue Ridge Road, it will appear that a large part of the State should be as much interested as Charleston in the Blue Ridge Road.

In this connection it may be confidently asserted that the people of South Carolina, in the last three years, if the Blue Ridge Railroad had been in operation, would have saved more than the present cost of the road, in the decreased price of provisions.

The immense water-power within this State, from the mountains to Columbia, along the line of the Blue Ridge Railroad and its connections, would at once be called into requisition. Wheat is carried from Knoxville to Richmond, 453 miles, and there manufactured into flour. But the largest portion is carried 300 miles further, by James River and Chesapeake Bay, to Baltimore, and there manufactured. Why should not Columbia manufacture flour as largely and as profitably as Richmond or Baltimore? It has greater water power, is as well located, and transportation would be cheaper.

A new country, almost entirely undeveloped, reaching for one hundred and fifty miles in length, would be penetrated by this road. This whole extent of country is rich in minerals of every kind. Gold, silver, copper, iron, lime, abound from Walhalla to the Tennessee

line. Rich and fertile valleys, now shut out from trade and commerce, and almost isolated, large tracts of mountain lands, useful for grazing stock of all kinds, beautiful scenery and invigorating climate. Surely a large and remunerative local business would gradually grow up along the line of road, which would increase from year to year, under the invigorating influence of this enterprise.

But among the great advantages resulting from this connection with the great Western Cities, should not be omitted the happy influence it would exert upon the railway system of this State, now incomplete and languishing.

The Greenville and Columbia Railroad, in which the State and people have over three millions already invested, would at once be revived. The bonds and stock of the Company would assume their former value, and thus this large investment be rendered safe and profitable: and to a proportionate extent would every completed railroad in the State be benefited by the increased trade and business flowing into the State through this channel. New roads now projected would be placed under contract and completed; new facilities and conveniences of trade and travel would be opened, and every portion of the State reap a proportion of these great advantages.

To form some estimate of the increased traffic thrown over our roads by this connection, it is only necessary to take a glance at the prosperous condition of the railroads in Georgia. The freight from Chattanooga to Atlanta, over the Georgia State Road, is divided at Atlanta, between the Georgia Road to Augusta, and the Macon Road to Macon. What is carried to Augusta, is again divided between the roads to Charleston and Savannah. Now look at the gross receipts on the South Carolina Railroad last year, over one million of dollars, and the Georgia Central, leading from Macon to Savannah, over two millions; and contrast this with the condition of these roads, if Georgia had no great western connections.

THE IMMEDIATE, PRESSING NECESSITY FOR THE COMPLETION OF THIS ROAD.

Unless the people of this State are content to be isolated and cut off from the commerce of the West and Southwest; to see their present railway system, upon which so much has been expended, dwindle away and become a tax rather than a great source of revenue: our cities, towns and villages become depopulated and waste places, and our whole people relapse into a condition of ignorance, idleness and poverty,—then immediate, prompt and efficient action should be taken. Georgia, by the connection of her railroads with the Georgia and East Tennessee Railroad, girdles our State closely on the south and west, intercepting the trade beyond and conducting it to Savannah. Virginia, by the connection of her roads with the Tennessee and Virginia Railroad, girdles our State on the west, and draws the trade of that region to her ports. North Carolina, by the extension of her State Road from Salisbury down the French Broad, to connect with the Tennessee and Virginia Road, forty miles north-east of Knoxville, and also with Cleveland on the Tennessee River, presents another transit for the western trade to her seaports. For this road, the State of North Carolina has granted aid to the extent of six millions of dollars, and is now considering the propriety of giving six millions more.

But this is not all: North Carolina, by the

Rutherfordton, Charlotte and Wilmington Railroad, also in progress, is drawing the belt still more closely around the North-Eastern boundary of our State. The tendency and effect of these roads, will be cut off and isolate the people of this State from all commerce beyond our own borders, and make us for all time dependent upon the enterprise of other States for such poor facilities as we may enjoy. When they work their effects, the trade of Charleston and other ports on our coast must be limited to the products and wants of South Carolina.

Other States, our competitors for Western commerce, have not been supine, indifferent or penurious on this subject. Virginia has expended over twelve millions of dollars; Georgia more than five millions for her State Road alone, from Atlanta to Chattanooga; North Carolina over six millions; and Tennessee, to concentrate trade in her borders and afford facilities to her people, has granted near thirty millions in aid and guaranty of bonds to various Railroads.

WHAT HAS SOUTH CAROLINA INVESTED IN AID OF HER RAILWAY SYSTEM.

According to a table in the report of the Comptroller General for 1860, the State held on the 1st of October of that year, Railroad Stock amounting to \$2,651,600 at par value.

But the only charge upon the taxable property which has been made for the construction of railroads, consists in the subscription to the Blue Ridge Railroad of one million three hundred and ten thousand dollars, and five thousand dollars per mile to purchase iron for the Charleston and Savannah Railroad.

One million and fifty thousand dollars of the surplus revenue was received years ago, from the United States, nominally on deposit. The State subscribed eight hundred thousand dollars of this deposit to the Louisville, Cincinnati and Charleston Road. This subscription was transferred to the South Carolina Railroad, and the aid which the Legislature has given to other railroads was, by the transfer of parcels of this stock at par, in payment of the State subscriptions.

If the State of Georgia could pay \$5,000,000 for her road to Chattanooga, and North Carolina twelve or fifteen millions for her road from Beaufort to Cleveland, should South Carolina hesitate to furnish at once the small sum, comparatively, necessary for the Blue Ridge Railroad, which when completed will be by far the cheapest and most direct line from the West to the Atlantic seaboard?

The Blue Ridge Railroad must be completed as a State enterprise, or it can not be completed at all. The cost is too great, in the present impoverished condition of the people, for individual capital to undertake it. The benefits it will confer are not personal or local, so as to stimulate the investment of much private capital. It has shown that its benefits will be diffused over the whole State. A great national highway like this, uniting the geographical divisions of the continent, across the great mountain barrier which separates them, is by reason of the magnitude of the work, and the universal benefit it confers, properly the duty of the government.

Can the State do this, without imposing too heavy taxation upon the people? Of course it could not be expected or asked that the State should raise, in money, the two or three millions necessary for this enterprise at one time. The company does not ask this. All that is expected of the State is, that she shall guarantee the bonds of the company for say three millions of dollars, to be issued in such sums and at such times, as the progress of the work may require. And that the State shall provide for the payment of the interest on the bonds issued

from time to time as the road is being built. For example, the company could perhaps expend one million of dollars a year, for three years, in which time the road can be completed. The State would provide for interest on \$1,000,000

First year.....	\$ 70,000
Second year.....	140,000
Third year.....	210,000

\$420,000

So that by an expenditure of four hundred and twenty thousand dollars to be raised by taxation in three years, this great enterprise would be secured. Or if the whole amount was issued at one time, the whole interest would be \$210,000 per annum, or \$630,000 for three years.

This estimate is based upon the confident expectation that the road, as soon as completed, would pay expenses of operation and interest on this small debt. Can this reasonably be doubted when we have the results of the Georgia Railroads, from year to year before us.

The State would have ample security for her guaranty. A first mortgage on the road thus eligibly located, costing \$7,500,000, with a debt of only three millions.

But the President and Directors are not looking alone to State aid. A vigorous effort is now being made to induce the land holders along the entire line from Anderson to Knoxville to either donate or subscribe a portion of their waste and idle lands, in aid of the enterprise. This scheme has succeeded elsewhere, and from evidence before us, we have confidence that a large number of acres of land will be subscribed. Upon this land it is believed that money can be obtained, at the North or in Europe, on most favorable terms. To succeed in these efforts the Board must have the countenance and support of those in authority. The present necessities of the company are so great, and the perils and difficulties surrounding it so threatening, that longer delay may endanger the whole enterprise. In June last from the straitened condition of the company, being wholly without available means, to subserve the interests of the public, in the way of trade and travel, and keep the road in operation from Anderson to Walhalla, thirty-four miles, it was leased to the Greenville and Columbia Railroad Company, without charge, except to keep the road in condition, and return it uninjured.

This agreement was not entered into with a view to profit on the part of either company, but it was then, and is now, a matter of great consequence that the road should be operated. The business of the road is increasing steadily, and it is believed that the income in the future, will be ample to pay ordinary expenses of running it, and leave a surplus.

But the three engines belonging to the company, are all out of repair, and it will involve a cost of some seven or eight thousand dollars to have them put in order. This fund should be provided at once, as the lease to the Greenville and Columbia Railroad Company expires on the first day of June next, and the operation of the road would at once cease. Again, to carry out the project for obtaining subscriptions and donations of lands for the use of the company will necessarily require some funds.

But the most serious danger to the company, arises from its indebtedness. Although the mortgage debt is very small, as will be seen by statement, and although the bondholders have been most patient and forbearing, yet it is not wise to trust longer to this forbearance. Suits will be instituted, and the property and franchise of the company sold, unless some scheme is adopted to complete the road. Hence the reason of this urgent appeal to you, as the Chief Magistrate of the State, and representing her great interests in this Company.

A similar appeal will also be made to the city authorities of Charleston, in the confident hope and expectation that we will receive from both sources, encouragement and counsel, and such aid as may be practicable.

Very Respectfully,
J. W. HARRISON,
President Blue Ridge Railroad Co.

EXECUTIVE DEPT. SO. CA. }
Columbia, 23d March, 1868. }

GEN'L J. W. HARRISON,
President Blue Ridge Railroad Co.

DEAR SIR:—I have received and read with very great pleasure your communication, addressed to me on the subject of the Blue Ridge Railroad.

Your history of the enterprise is exceedingly interesting, and recalls many of the incidents connected with the inception and progress of this great work, which have passed from the memory of the old, and which are now for the first time brought to the attention of the younger members of society. The importance of a railroad connection with the North-West to all sections of South Carolina, is not exaggerated by you, if her people intend to develop her great resources and keep her up with the progress making by our enterprising sisters.

The estimates submitted by skillful and reliable engineers show that the work may be completed at less cost than any other transmontane connection heretofore made, and that the successful completion of the road may be certainly effected in two or three years, with but slight addition to the burthen of taxation on the people; everyone of whom is to be a common recipient of the rich blessings it is to pour in upon the State.

The debt of the company is small now, but small as it is the company is unable to liquidate it, and the bondholders will soon exhaust their patience, and bring the road to sale under the Sheriff's hammer, unless steps are taken promptly to push forward the work to completion.

Can the State and the city of Charleston afford to see the mortgage bonds sued on to judgment, and the road sold to raise less than two hundred and fifty thousand dollars, and the work done, together with the franchise, pass into other hands, when their united interest in stock alone, exceeds two millions of dollars, and especially when the completion of the entire work will take less than three and a half millions of dollars? The amount already expended by the State, city and private stockholders is over three and a quarter millions of dollars. Although we are surrounded with political and financial troubles, is it possible that with the work half completed, its abandonment can be for a moment contemplated by the State and the city of Charleston, and the three and a quarter millions of dollars of their money absolutely lost?

Surely wiser counsels will prevail, and whatever may be the opinions of individuals as to the wisdom or policy of embarking in the scheme originally, all must concur that the State is now too deeply involved to retreat from the undertaking. But one course is left, to save the present large investment, and that is to give the company such aid and facilities as will ensure the early completion of this truly great public work.

I trust your communication may be laid before the public, and I doubt not that its facts and deductions will arouse the attention of the people of the State, and incite them to such action as will enable you speedily to resume work, and ere long unite the Great West with the Atlantic coast of our State with arms of iron.

I am Sir, very respectfully,
Your Obedient Servant,
JAMES L. ORR, Governor S. C.

Our Railroad.

(From the Arizona Miner.)

A party of surveyors are now camped on the Beale wagon road, some sixty miles north of Prescott. A few days since, the head of the party sent in several wagons to Camp Whipple, Prescott, for forage, and we believe the wagons have returned with the forage. A correspondent at Hardyville, on the Colorado river, who has worked like a beaver to further the interest of the Railroad Company and Arizona, writes as follows in regard to this party, General Palmer, and the road generally:

HARDYVILLE, March 8, 1868.

Editor Arizona Miner: General Palmer has arrived at San Francisco, and taken the steamer for New York.

Messrs. Schuyler and Holbrook, surveyors, left this place on the 21st of February, en route for Albuquerque. Their object is to patch up the line and make a material improvement near Bill Williams' Mountain. The line will be surveyed further north, and when surveyed, a report will be telegraphed to Washington, so that it may be added to the main report of General Palmer. When this survey is made, the 35th parallel railroad will be permanently located, and maps will be filed with the Secretary of the Interior, so that all location hereafter made within twenty miles of the line surveyed will be subject to the control of the Railroad Company.

The road is located from Truxton Pass to the Colorado River, a distance of about one hundred miles; the point of crossing fixed; and the road located from the crossing of the Colorado River to Tehachapa Pass, a distance of about two hundred miles. As soon as work is commenced at the crossing of the river, a city will be commenced. Will it be called Needle City? RAILROAD.

UNION PACIFIC RAILWAY, E. D.—The annual meeting of the stockholders of the Union Pacific Railway, Eastern Division, was held at Lawrence, Kansas, on the 6th, and the reports of the Board of Directors and Superintendent read and approved. From these reports it appears, that 335 miles of main line and 34 miles of branch road are now in operation; that the increase during the last year was 199 miles; average length of road operated last year, 260 miles; total earnings \$1,883,853; net earnings \$606,335 gross earnings per mile, \$7,229.

Twenty miles of track additional was completed on Saturday, taking the track to within thirty miles of Pond Creek, which point it is expected to reach on the 15th of May. Present indications are that the business this year on the extended road will double that of last year.

The following Board of Directors was elected: John D. Perry, Adolphus Meier, C. S. Greeley, W. M. McPherson and Thos. L. Price, of Missouri; W. H. Clement and H. J. Jewett, of Ohio; Thos. A. Scott, H. John McManus, of Pennsylvania. John D. Perry was re-elected President; Adolphus Meier, Vice-President; C. E. Lamborn, Secretary, and W. J. Palmer, Treasurer.

The company now have twenty-nine Locomotives, twenty passenger and 771 freight cars. They are substituting coal for wood on all their engines running on the first division of their road, extending from the State line to Junction City. The coal in use is brought from Knob Noster, Mo. It can be delivered at the State line for \$4 a ton. The coal from the Stranger was tried, but would not answer the purpose. West of Junction, wood, although costing \$7 and \$7½ a cord, is cheaper than coal.

INSPECTION OF WATER-WORKS—A CINCINNATI DELEGATION.—*Pittsburg April 22.*—Mr. J. P. Mayor, Superintendent, and Wm. H. Pearce, of the Board of Trustees of the Cincinnati Water-works are here for the purpose of examining into the workings of our system. They are inquiring minutely into the minutiae of our system of water supply, modes of assessment and collection, capacity of works, &c. They go from here to Philadelphia, New York, Boston, and other Eastern cities, in prosecution of their investigation.

We trust the investigation will result in giving to the citizens of Cincinnati a better supply of better water. We were under the impression that the works of all the cities named had been most thoroughly examined before, as well as nearly every water-works of the great cities of Europe; all, however, has thus far failed to remedy the evils in our water supply.

PROPOSALS.

KNOXVILLE & KENTUCKY RAILROAD.

PROPOSALS FOR THE GRADATION and Masonry of the Nineteen miles of this Road not yet under contract, extending from a point two miles south of Elk Gap to the Kentucky line near the town of Boston, will be received at this office until the 24th day of April next.

The profile and specifications for this section, which includes four Tunnels, varying from two hundred and fifty to seventeen hundred and fifty feet in length, with other heavy work, can be seen at the Engineer's Office in Knoxville, after the 14th of April.

The Company reserve the right to reject all bids.
For further information address,

ADRIAN TERRY,
Chief Engineer, &c.

KNOXVILLE, TENN., March 26th. 1868.

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This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

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D. McLABEN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis, Aug. 2, 1886.]

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TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

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NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:39 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

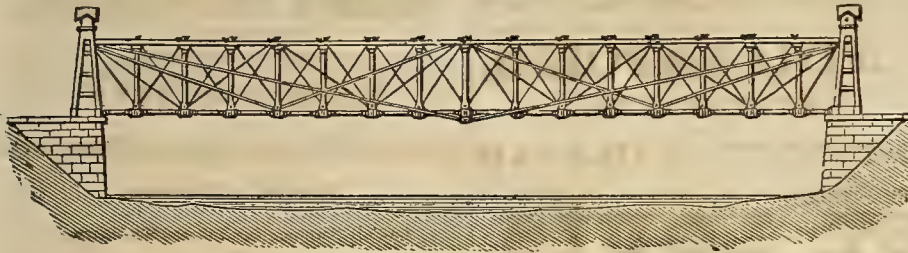
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

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In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

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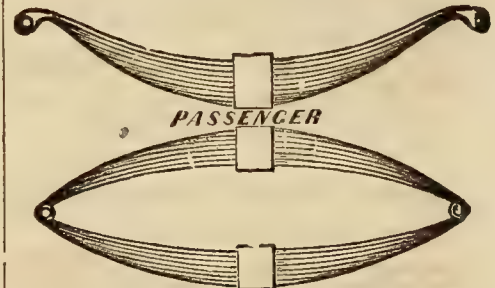
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BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

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This great national thoroughfare is again open for
Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and a rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure *through tickets and through checks to WASHINGTON CITY.*

W. P. SMITH, Master Transportation, Baltimore
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L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

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Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ci,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway (and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
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—AND—

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ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 "	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am
No change of cars between Cincinnati, St. Louis and Chicago.		

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Cornersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

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JOHN A. WRIGHT, Sup't.

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AND OTHER

Railroad Machinery, Tires, etc.

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Rebuild and Repair Locomotives.

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ESTABLISHED 1821.

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Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

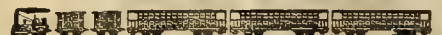
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STEPHEN MORRIS, CHAS. WHEELER
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HY. G. MORRIS.

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RAILROAD!!



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TRAINS LEAVE PHILADELPHIA FOR THE SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, { Editors
T. WRIGHTSON.

CINCINNATI:
THURSDAY, APRIL 30, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

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Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.
DEPART. ARRIVE.
Morning Express..... 7:00 P. M. 6:10 A. M.
Night Express..... 6:00 A. M. 6:00 P. M.

LITTLE MIAMI.
Lightning Express..... 7:00 A. M. 4:35 P. M.
Express Mail..... 8:30 A. M.
Columbus Accommodation..... 3:50 P. M. 10:20 A. M.
Morrow Accommodation..... 5:20 P. M. 8:00 A. M.
Lightning Express..... 8:00 P. M. 10:35 P. M.
Night Express..... 6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.
Lightning Express..... 7:00 A. M. 7:25 P. M.
Express Mail..... 9:30 A. M. 5:25 A. M.
New York Express..... 8:00 P. M. 8:35 A. M.

MARIETTA AND CINCINNATI.
Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City
Night Express..... 12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail..... 7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail..... 7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation..... 3:55 P. M. 10:00 A. M.
Loveland Accommodation..... 5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.
Toledo, Detroit and Canada..... 6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada..... 6:30 P. M. 6:10 A. M.
Richmond and Chicago Mail..... 7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp..... 5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City..... 6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City..... 5:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago..... 3:00 P. M. 5:30 P. M.
Bellefontaine and Sandusky..... 6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky..... 3:00 P. M. 10:30 A. M.
Hamilton Accommodation..... 6:30 P. M. 7:55 A. M.
Dayton Accommodation..... 6:30 P. M. 10:30 A. M.
Dayton Express..... 5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.
Day Express..... 7:20 A. M. 7:05 P. M.
Night Express..... 5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.
Connersville, Cambridge City and Indianapolis Mail..... 6:00 A. M. 10:10 P. M.
Connersville, Cambridge City and Indianapolis Express..... 5:10 P. M. 10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.
Chicago and St. Louis Express..... 7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.
St. Louis, Cairo & Louisville..... 7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex. 5:45 P. M. 6:10 A. M.
Louisville Special Train..... 3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.
Mail..... 7:00 A. M. 4:10 P. M.
Caboose Accommodation..... 3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.
Express..... 6:00 A. M. 6:00 P. M.
Lexington Express..... 2:40 P. M. 10:50 A. M.
Falmouth Accommodation..... 6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.
Express Mail..... 7:00 A. M. 6:15 A. M.
Fast Express..... 8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express. 8:00 P. M. 10:35 A. M.

The Southside Consolidation Act; the Great Measure to Regenerate the Commercial Fortunes of Virginia.

Such is the title of a pamphlet we have laid before us, by a gentleman in Virginia. As we endeavor to lay before our readers the new projects for railroads, and improvements of any sort, where objects are to connect the Ohio Valley with the Atlantic seaports, we shall make a brief digest of this scheme, which is briefly expressed in the pamphlet as "one line, one railroad, one company, one management, from the seaboard to Cumberland Gap." Now, as we have been a long time trying to get from Cincinnati to Cumberland Gap, this may interest us.

An idea of the plan may perhaps be best obtained by an analysis of the act passed April 18th, 1867. Section 1, authorizes the Virginia & Tennessee Railroad Company, Southside Railroad Co., Norfolk & Petersburg Company, and the Virginia & Kentucky Company, to form one Company, to be known as the Atlantic, Mississippi & Ohio Railroad Company. Section 2, provides that the capital may be \$20,000,000, and the Company may borrow money at any rate not exceeding 10 per cent. Section 3 and 4, provides the modes in which the financial consolidation shall be made. Section 5, provides that in consideration, the Atlantic & Ohio Company shall complete the railroad of the Virginia & Kentucky Railroad Company from Bristol, Goodson to Cumberland Gap; and allow any railroad which shall be made from Richmond to connect at Lynchburg. Section 10, provides that the company may hold any quantity not exceeding two millions of acres of land, in payment for the subscriptions to stock. All the other sections are merely auxiliary to these. It will be seen at once by the reader, that the object is to make a continuous line of railroad from Norfolk and Richmond to Cumberland Gap; aiming no doubt, at a connection there, with railroads to Cincinnati, Louisville, Cairo, etc. In one word, this is another of several great plans to connect the Southern Atlantic with Cincinnati. It will be a very good plan, if Cincinnati men has public spirit enough to aid in making a railroad to the Tennessee line.

But, let us see what they say of it. There is a decided variation in one particular from the plans of roads heretofore proposed through Cumberland Gap. This road is to go from Norfolk to Petersburg; from Petersburg to Lynchburg; from Lynchburg to Bristol, and from Bristol through Virginia to Cumberland Gap. All the roads heretofore contemplated to Cumberland Gap from the South, were to go through Tennessee; but this is to go through Virginia; and from Cumberland Gap three roads are contemplated, one to Cincinnati, one to Louisville, and one to Memphis. From Norfolk to Bristol the road is already made; but that point will be entirely new,

and obviously contemplates a grand undertaking.

The object of the projectors of this road is one which has been long entertained in Virginia, viz.: to make a great commercial seaport in Virginia. Norfolk, of course, is selected as the site, and there is no doubt it is one of the finest harbors of the United States. Some persons are entirely sceptical about building up any great commercial city in the South; but we are not. We know of no good reason why Charleston should not resume its old commercial position, or why Norfolk should not make a large and flourishing seaport. But we do know, they never will be large cities, till they are connected by direct railroad lines with the Valley of the Ohio and the Upper Mississippi. We suppose the real reason why this has not been done heretofore is,—1. That the South cannot do it alone,—2. Kentucky will do nothing in aid of it; and 3. That Cincinnati does not feel disposed to make a railroad which she cannot control, and which may be wrested from her by the Legislature of Kentucky, as a large corporate institution in Covington was some years ago, by a deliberate act of the Legislature. However this may be, and however earnest the effort in Virginia and South Carolina are to effect this grand internal communication, yet we really do not see that the project advances any in Kentucky, where the practical difficulty lies.

We will now state some of the reasons and illustrations given by the friends of this project.

1. Of the harbor of Norfolk, which is really one of the best in the country:

The depths of water afforded by the channels of approach to the several principal ports of the United States, at high tide, are as follows:

	Feet.
New York.....	27
Philadelphia.....	25
Boston.....	23
Baltimore.....	22
Norfolk.....	28
West Point on York river.....	24
City Point on James river.....	18
Charleston.....	15
Savannah.....	17
Pensacola.....	22
Mobile.....	21
New Orleans.....	15

2. The next point made is the shorter distances; and from these tables we take the following relating to Cincinnati:

	Miles.
From Cincinnati to New York.....	958
“ “ to Baltimore.....	590
“ “ to Virginia Capes via Baltimore.....	765
“ “ to Norfolk via Cumberland Gap.....	721
“ “ to City Point.....	651
“ “ to West Point via Richmond & Air Line R.R.	656

The direct line to Norfolk or Charleston (which are about equal), is shorter than to any other actual seaport. In the above tables,

the new line from Bristol to Cumberland Gap, is put down at 95 miles.

3. Another claim made is that the *grades* on the Bristol line, are less than on those of the leading lines East; and that, therefore, were this line made, it would have an advantage over those other lines. On this head, we give the argument of the pamphlet before us.

These tables of comparative distances present to the eye, in the most compendious form, the importance to the trade of the West of the line of railway of which the Virginia and Kentucky road is a part. In presenting them, however, I must not be understood as advancing the proposition, that Cincinnati, or Chicago, or Louisville, or St. Louis will come to Norfolk as a market in preference to New York, merely on account of the shorter route thus presented. But the importance of this southern line will be primarily due to the fact that the great lines of trade and travel which now lead from the Ohio Valley and the Northwest to the Northern seaboard, are so crowded with trade in the warm season, and so encumbered with trade and ice in the cold months, during which the rivers and lakes, and the New York and Pennsylvania canals are closed, as greatly to embarrass the cities of the West in forwarding their produce to market. It has become a desideratum to Cincinnati and to all the cities west and northwest of her, to devise some means of getting to New York by a *side entrance*, so to speak. The opening of this line will give to Cincinnati, Louisville and St. Louis, the great advantage of access to New York over a route, which will never be clogged with ice; which presents easier grades than any of the great lines that cross the Alleghanies; and which, though it also will be crowded with trade, yet will bear a trade in great part their own. The respective maximum grades presented by the great lines of railway that lead over the Alleghany range are as follows:

	Feet to the mile.
Pennsylvania Central Railroad.....	100
Baltimore and Ohio Railroad.....	116
Lynchburg, Bristol and Cumberland Gap Railroad.....	68
Blue Ridge (South Carolina) Railroad....	70

The cities in question will have the great advantage, over those on the lakes, of monopolizing the use of this line. At first, indeed, our own cities on the seaboard will derive little advantage from a trade passing rapidly through their environs on its way to New York. But, when once a vast stream of trade begins to flow in this channel, it will not be long before another step will be taken; before, instead of going to Europe from Norfolk by way of New York, it will prefer to escape the high charges and encumbered warehouses encountered in that city, and go to Europe by the direct ocean passage.

These are the main arguments made in favor of the Bristol route, and they are certainly strong ones. The consideration of this scheme, and the arguments in favor of it, lead us to a still clearer perception of the immense advantages of the Southern road to Cincinnati. If the *trunk line* were finished from Covington to the Cumberland River, roads would at once converge on it, from every point of the South; and one thing is pretty evident, which has not heretofore been

much thought of, that this *trunk line* in Kentucky will *PAY*. This has not been taken into the account, for it has been taken for granted, that a railroad running through the thinly settled counties of Kentucky would not pay. We think now, that it can be demonstrated to be a *paying speculation*; and if that is so, capitalists will soon be found to take hold of it. Look at it! A road from Norfolk coming as a Branch; the Blue Ridge Railroad completed; the road to Knoxville and Atlanta coming in; with another in southern Kentucky; all of these acting as feeders to ONE TRUNK LINE, pouring all this immense traffic into Cincinnati! Such a line must pay; will pay; and it will not be long before capitalists will find *that* out. If the solid men of Cincinnati would propose a plan, which would be one of the greatest speculations of the times, they could not hit upon one better than this. There is a time when fruit ripens, and there is the time to pick it. It is true, that this Southern Road may not have been a speculation in past years, but it is most assuredly one now. Who will enter for the prize?

SOUTHERN RAILROAD CONNECTION.

Cincinnati and the South.

In our last week's issue we gave the very able paper of J. W. HARRISON, Esq., addressed to the Governor of South Carolina, in relation to the condition and prospects of the Blue Ridge Railroad, connecting Knoxville in the most direct line possible with Charleston, S. C. No citizen of Cincinnati can look on this enterprise otherwise than with feelings of deep interest, as being part of the grand scheme for a complete connection between Cincinnati and the great North west with the Southern seaboard and the rice and cotton States of the South. There is one very admirable feature in the condition of the enterprise, that is, the very small amount of the bonded debt of the company, while the condition of the work is in such a state of forwardness, that a less amount than has been already expended will enable the cars to run through from Charleston to Knoxville; and although neither public nor private purses of our friends at the South are supposed to be very plethoric, yet we have full confidence, that with a little more State and city corporate aid, together with a judicious arrangement for *preferred shares*, no very serious impediment will be experienced in raising the necessary means for the completion of the road. It is useless for us to say that the Blue Ridge Railroad has the sympathy of the people of Cincinnati; it is not sympathy that they want but money. If the portion of the route that legitimately belongs to Cincinnati to construct was finished, we have no doubt that material aid would soon be extended from here for the

completion of this great avenue. We trust to be able to announce before many days that Cincinnati has made arrangements to "hold up her end of the string," and that in less than eighteen months the "swift winged messenger"—the locomotive—will traverse the iron bands of commerce uniting the zones in the indissoluble bonds of mutual interest.

Over a year ago we pointed out the only true policy for the consummation of this enterprise to be the consolidation of the various interests that have hitherto prevented each other, as well as any body else, from doing anything. We are glad to be able to say that we think these have now been entirely removed, and a plan presented that is at once feasible and possessed of such merit as not only to remove all obstacles, but also makes tempting offers to the surplus money of capitalists, business men and property holders of our city. We published the "Plan for the Construction of the Southern Railroad," as presented by S. H. GOODIN, Esq., in our issue of April 2d, but as the following from the Cincinnati *Gazette* furnishes such a very condensed and able *resume* of the scheme of Mr. G. that we are induced to give the article in full:

THE SOUTHERN RAILROAD.

Mr. Samuel H. Goodin has done a good work for the public, by reducing the glittering generalities and vague desires of the long talked of railroad directly South from Cincinnati to a practicable working plan. He has shown what is necessary to be done, and how to do it. He has presented a complete plan, embracing both the affairs of engineering and of finance, and has shown as substantial and promising a basis for the investment of capital in this road, as any railroad project ever presented in this country. This is saying much, but to support it, we ask a careful reading of the published pamphlet containing this scheme.

Hitherto, the existing portion of railroad on this route—that from Covington to Lexington, with an unfinished part to Danville—has been regarded as an obstacle to the undertaking. Our citizens have assumed that they would have to buy this portion at a large bonus, in order to get control of the whole route. Many have made their dislike of this an excuse for doing nothing. But Mr. Goodin presents a proposition from the owners of that portion which seems fair and liberal, and which, instead of an obstacle, will make that completed road at least as good a basis for the financial measures to complete the whole route, as if the new company had in cash the amount which it will cost them. We say this, at least; but we believe that it will be a much better basis for future construction and for dividends, than the same amount in money; and that the new company will be in a much better condition with this constructed road in their hands, at the price asked, than if they had the route vacant, and so much money to build it with.

By the purchase of the Kentucky Central, and the Lexington and Danville Railroad interests, the new company will come into possession of a charter to the Southern line of Kentucky, which Mr. Goodin pronounces liberal in its provisions; will have a well constructed and equipped road of ninety-nine

miles to Lexington, whose gross receipts for the last year are estimated at more than \$600,000; an extension to Nicholasville, now running, and a partly constructed road to Danville, and will thus avoid all the competition of building a road parallel to one already running. The amount of money required to do this, the obligations to be assumed, and the resources which it will make available, are shown in detail by Mr. Goodin, with a care and candor that create confidence.

From this secured basis there is an exhibit of the ways and means for the construction of the rest of the road, by successive stages, and all this is supported by actual surveys by engineers, which enable the estimates of practicability and cost of construction to be made in a reliable manner.

It will require the sum of \$830,000, in cash, to enable the new company to purchase the Kentucky Central, from Covington to Lexington, 99 miles, a well constructed and equipped road, doing a fine business. This, it is proposed to raise by stock subscriptions to the new company, called the Cincinnati, Lexington and East Tennessee Railroad Company.

The cash subscription, and the obligations which the new company will assume, will amount to \$3,330,000, for which the company will come into possession of a property which Mr. Goodin estimates to have cost \$4,505,043.

The owners of the road from Lexington to Danville offer to sell their interest for \$450,000, payable in the stock of the new company. It consists of a line of 36 miles, of which 13 miles, to Nicholasville, are finished; ten miles graded, and other unfinished work. The actual expenditure on all this is estimated at \$1,200,000. This the owners propose to transfer unencumbered (save by bonds which they do not control, amounting to \$4,255 40) to the new company for \$450,000, in its stock.

The present value of these roads has been carefully estimated by an engineer, who fixes that of the Kentucky Central, with its equipment, at \$3,727,070, and that of the Lexington and Danville at \$871,370, making an aggregate of \$4,598,440, which will cost the new company \$3,780,000, of which the cash investment will be \$830,000, the rest being already placed in long loans, avoiding all the expense of negotiations, commissions and discounts. And thus the new company will come into a remunerative property at the start, and become master of the situation.

The line to be built from Nicholasville to the Kentucky State line is 113 miles, (of which the first ten miles are graded,) and Mr. Goodin divides it into three sections, to be built consecutively. The first section, 28 miles, includes a costly bridge over the Kentucky river, and reaches South Danville, on the Lebanon branch of the Louisville and Nashville Railroad, and brings in important connections. To complete this a contribution or bonus of \$600,000 is proposed, so as to limit the issue of stock to an amount that will keep it at par. This is the first place where a bonus comes in. The previous financing is by subscription to a desirable investment. Two years ago a bonus of a million was offered to any party that would build the road; and, besides the counties on the line have made generous offers.

Mr. Goodin apportions this bonus as follows: To the counties of Fayette, Jassamine, Mercer and Boyle, and to the towns of Lexington and Danville, all together, \$150,000; to Covington and Newport, \$50,000; to the lines of Railroad terminating at Cincinnati, \$150,000, and to Cincinnati, \$250,000.

The next section, 48 miles, reaches the Cumberland river. He estimates that a bonus of \$700,000 will reinforce the stock enough to make a further issue of \$1,075,000 to complete this portion, and that the contributors will willingly double their former amounts on this greatly expanded basis and rapidly increasing business. With all this, the contribution asked from Cincinnati will be but little over \$550,000, which is less than one-half of one per cent. on her valuation for taxes, and this in gradual payments, bringing direct returns.

The last section, 37 miles, is over a rough and not rich country, which can contribute nothing but the right of way and some land. This completed, the road meets the railroad from Knoxville, and comes into communication with 6,000 miles of Southern railroads, radiating over seven States. If the situation of the road at this stage, with these prospects ahead, should not be strong enough to raise the money to build this section by the sale of its stock, it will surely be a sufficient basis for the issue of \$1,602,223 in bonds, which is the engineer's estimate of the cost of completing it.

These are the main features of the plan, which is fortified by particular details and by the reports of eminent engineers. We have heretofore maintained that this is the most valuable railroad route yet unoccupied, and we now affirm that no new line ever presented a more promising financial scheme. The amount required to capitalize this enterprise, and to put it on a real and paying basis, and the further amount of bonus, altogether are hardly enough to call out the reserve energies of this great and wealthy city. It is a trifle, compared with its wealth, or with the great business which it would secure.

The first thing to be done is to procure the subscriptions to stock to make the purchase of the present railroad property. The propositions of the companies to sell stand good only for a limited time. A canvass for subscriptions to the stock will test whether there is interest enough felt in this enterprise to carry it through. A little energy, and a comparatively small investment of capital, will give us this road and a command of the best communications with a country which will insure our position as the Queen City of the West. If we neglect it, none of the trade of that vast region will come to this city.

Mr. Goodin concludes his exhibit with this exhortation:

"Let a sharp and vigorous canvass be instituted for this stock and this bonus; let the whole body of our citizens, both here and those along the proposed line, devote themselves to it, each one feeling that upon his individual effort depends its success. This done, and midsummer may not have passed before we may be at work, and within eighteen months delivering freights and passengers at Charleston, Savannah, Pensacola, Mobile and New Orleans, without break of bulk or change of cars, the five-foot gauge being uniform throughout the South, and the connections perfect to each of these points."

CLEVELAND, WOOSTER & ZANESVILLE—New life has been put into this projected line recently. The committee intend to put an engineer's party on the line immediately, and an agent has been appointed for soliciting means to meet the preliminary expenses for surveys, getting the right of way, &c., and to collect money heretofore subscribed.

The Ohio River.

OBSTRUCTIONS TO RIVER NAVIGATION.

The following article on the danger of destroying the navigation of the Ohio river is from the *Pittsburg Gazette*:

It will be very much to be regretted if the people, not only of Pittsburg, but of all the regions watered by the upper Ohio river and its tributaries should, without timely and vigorous remonstrance, suffer the navigation of this stream to be impeded by any additional obstructions. If the Steubenville bridge, with its numerous massive piers, separated by only three hundred feet of span, is to be duplicated at Cincinnati, as now proposed, despite the earnest efforts with which the leading commercial interests of that city are opposing it, the very numerous class of the citizens of the valley who are directly concerned in protecting an unimpeded navigation, may as well retire from further efforts to control the aggressions of the railway bridge-building interest at any point along its course.

The bridge at Steubenville has a span of but three hundred feet between the piers in the channel. The numerous piers which dot its lines from bank to bank are solid piles of masonry. Were each one of them a natural obstacle, supporting no structure above, and answering no specially useful purpose, they would have been removed long since, for the conveniences and safety of navigation. Placed there purposely, thickly studding the river bed, formidable impediments to the passing water-craft, they offer an obstruction which can only be justified by reasons of necessity, or by an overshadowing preponderance of interests in their favor. It is, however, susceptible of proof that, while the contracted water-way, which is so limited between these narrow spans, is a constant source of danger to life, and of loss to valuable property floating on the stream, there were no engineering difficulties in the way of wider spans which would have reduced this danger and loss to a minimum such as the marine interest would have acquiesced in. There is ample scientific authority for declaring that spans of 500 feet were entirely practicable, and we know that this width of clear water-way, with the structure above elevated not less than forty feet above the extreme high water level, would, in effect, secure this minimum of risk to the maritime interests concerned. But it follows that, since no reasons of necessity existed for this perilous multiplication of the dangers of navigation, the relative magnitude of the interests concerned in the railway transit over the stream is no justification whatever for the resulting encroachments upon the right of free navigation.

Citizens of the upper valley who do business upon the Ohio river, whether interested on steamboat stock, lumber, coal, oil, or the numberless products of their manufacturing industry, have uniformly complained of this Steubenville bridge as needlessly and dangerously obstructing the river navigation. They are not disposed to rest quietly while their rights are again threatened at Cincinnati. It is there proposed, in the interest again of railways to bridge the Ohio upon piers of but 300 to 350 feet of span, connecting the city with Newport on the Kentucky shore. This project is even more objectionable than is the structure at Steubenville, for, while here the surface of the river is not crowded with craft, and usually the boat or tow moving in either direction is not embarrassed by other vessels in the channel, at

Cincinnati the surface of the stream is thickly dotted along the whole city front with numerous boats plying in all directions, and now requiring a skillful care in pilotage.

It is easy to see how the numerous bridge piers, separated by a space less than that covered by even an ordinary coal tow, and thrown across the busy surface of the stream at that important point, would be irreparably injurious to the interests of navigation. Authority for the erection of these dangerous impediments in the channel of the river is now sought for from the Ohio Legislature. Interests understood to be involved in a connection of the railways of the two States are pressing through, at Columbus, a bill to erect a bridge, and authorizing spans between piers of but three hundred feet. We rejoice to say that the intelligent commercial and professional interests of Cincinnati are vigorously opposing this proposition. At a meeting of the Chamber of Commerce, an earnest protest was adopted, and both Congress and State Legislature were urged to protect the interests of navigation from the proposed encroachments. It was agreed that every bridge across the Ohio should have at least one span of five hundred feet in the channel, and that it is the duty of Congress to interfere by suitable enactments to prevent the erection of any greater obstructions. Memorials signed by hundreds of the leading merchants of the city, and by the Board of Underwriters, similarly protesting, have also been forwarded to Columbus. We regret, however, to perceive that the objectionable measure is likely to become a law, under, as it is charged, the free use of the most corrupt appliances known in recent legislation. This will leave the only remedy in an appeal to Congress to exercise its unquestionable power in protecting the interstate interests concerned in the free navigation of the river. We commend the subject as one of pressing and immeasurable importance, to the immediate attention of Representatives from the districts of the valley.

The true redress is in Congress. Rivers like the Ohio, that are of vast national importance, are not and should not be under the local control of any one or more States, but general laws regulating their use as national highways should be made by Congress, with proper and suitable general provisions for bridging not only the Ohio, but all similar streams. The interests of river commerce would be thus uniformly protected, and the great works of internal improvement—the great developers of our internal resources and material wealth, that brings the far distant territory to our immediate doors—the railroads,—would have just and equitable provisions for crossing streams, uniform in all cases, not to be varied from without a remarkable special reason. There would be no occasions for the delays, expenses, corruption and debauchery now incident to the procuring of special charters.

It is true, there are peculiarities both of locality and trade that might sometimes require a modification of any general rule, and it is a well known fact that what might be a sufficient bridge over a stream that "ebbs and flows twice in twenty-four hours," would not answer for rivers like the Ohio, where the variations between high and low water exceeds 60 feet.

Ohio and Mississippi Railway.

[From the Financial Chronicle.]

The Ohio and Mississippi Railway forms a continuous line of road, of the six-foot gauge, from Cincinnati to St. Louis, a distance of 340 miles, passing through the three States of Ohio, Indiana and Illinois. The Atlantic and Great Western and Erie Railways continue this line eastward to New York, the whole making a grand through line of traffic between the seaboard and the Mississippi River, in length 1,203 miles.

This great line was constructed under two independent companies. The portion of the road in Ohio and Indiana, from Cincinnati to Vincennes, (now entitled the Eastern Division,) 192 miles, was built under charters granted by Indiana, in the acts of February 14, 1848, January 15, 1849, and February 15, 1851, and by Ohio in the acts of March 15, 1849, and January 24, 1851. Under the last named act the city of Cincinnati was authorized to subscribe to the capital stock of the company to an amount not exceeding \$1,000,000. The Indiana act of 1849 authorized the counties which the road should traverse to subscribe stock, etc., and that of 1851 gave the company authority to borrow money, and provided that, on their acceptance, the charters granted by the States of Ohio and Illinois should become a part of the original act of incorporation. That part of the line, (now the Western Division,) extending from the Indiana State line to Illinoistown, (the terminus opposite St. Louis,) 148 miles, was constructed under a charter granted by the State of Illinois in the act of February 12, 1851. Under these several acts the road was located and built, and, in April, 1857, was opened for traffic between Cincinnati and Vincennes. The line westward to the Mississippi was completed in the same year, and the two under agreement were thenceforward operated as one line.

From the day of opening these roads the companies labored under financial embarrassments, and suits for foreclosure of mortgages followed. An agreement of creditors and stockholders, dated December 15, 1858, placed the whole interests of the company in the hands of trustees. In this position these interests continued for the next ten years; the trustees in the meantime having liquidated all the stocks and debts of the company by the issue of certificates. Under an amendment of the original agreement, dated April 17, 1863, the trustees purchased with the same certificates all the stock and part of the bonds of the Illinois division of the road. Thus, to all intents and purposes, the whole line of railroad between Cincinnati and St. Louis, now known and operated as the Ohio and Mississippi Railway, became the property of the trust, subject only to the mortgage bonds outstanding.

The final object of the trust created in 1858 was the capitalization of the stocks and debts of the extinct organization, and its reorganization a sound financial basis. To complete this design, the eastern division of the road was sold under the foreclosure of the second mortgage on the 9th of January, 1867, and bought in by the trustees. A new company, composed of the holders of the trustees' certificates, was organized on the 18th of November, of the same year, under the corporate name of the "Ohio and Mississippi Railway Company of Ohio and Indiana," and the trustees having, as previously stated, purchased the property of the "Ohio and Mississippi Railway Company of Illinois," extending from Vincennes to East St. Louis, the two divisions were consolidated on the 19th of December,

under the general title of the "Ohio and Mississippi Railway Company." The basis of the reorganization and consolidation of the company is as follows:

Capital stock—Common stock.....	\$20,000,000
do. — 7 per cent preferred stock.....	3,500,000
Total stock in \$100 shares.....	\$23,500,000
Consolidated 7 per cent. mortgage bonds, due January 1, 1898.....	6,000,000

Total stock and bonds, (=85,765 per mile.) \$29,500,000

Under this arrangement the certificates issued by the trustees were redeemed in stocks at par. The amount of common certificates, however, exceeded the total common stock issuable by \$226,604 44. This excess is to be provided for outside of capital stock. On the other hand, the amount of preferred certificates issued was \$155,875 38 less than the amount of preferred stock authorized. The balance or net excess of certificates to be provided for is therefore \$80,729 06, but rateably, or according to negotiable value, this excess is only nominal, the greater value of the preferred stock on hand counterbalancing the inferior value of the common certificates in excess. Of the consolidated mortgage bonds provided for in the basis above given, \$4,000,000 will be placed in trust for the redemption of the bonds of the company now outstanding. The remaining \$2,000,000 are set apart for the improvement, etc., of the company's property.

The General Balance Sheet of January 1st, 1868, shows the financial condition of the consolidated company at that date, to have been as exhibited in the following abstract statement:

Trustees' common certificates converted or to be converted into common stock,....	\$20,000,000 00
Trustees' common certificates to be provided for outside of capital stock,.....	\$226,604 44
Trustees' preferred certificates converted or to be converted into preferred stock,....	\$3,354,124 62
Preferred stock authorized to be issued, \$3,500,000; balance to be issued,	145,875 38 3,500,000 00
Excess of certificates to be provided for outside of capital stock,.....	80,729 06
First mortgage bonds (E. D.) due July 1, 1872,	\$2,050,000 00
First mortgage bonds (W. D.) due July 1, 1872,	850,000 00
Sec'd mortgage bonds (W. D.) due July 1, 1874,	750,000 00
Funded debt bonds (W. D.) due October 1, 1882,	16,500 00
Income bonds (W. D.) due October 1, 1882,	221,500 00 3,880,000 00
Bills payable,	41,405 42
Due on pay-rolls, purchases, and other ac'ts,	476,558 73
Net earnings since Nov. 1, 1867, the time the consolidated Co. the business, etc., of old organization.....	122,225 26
Total.....	\$28,108,918 47
Per contra:	
Construction,	\$24,086,919 77
Machinery and Tools,	141,740 92
Personal Property, Real Estate, &c.,	1,686,652 16
Telegraph line,	25,042 59
Equipment,	1,707,000 00
Property,	\$27,647,335 47
In hands of Treasurer, &c.	\$154,205 50
Materials in shops,	114,198 46
Personal accounts,	193,179 04— 461,583 00
Total,	\$28,108,918 47

The rolling stock owned by the consolidated company on the 1st of Jan., 1868, comprised 79 locomotives, of which 48 were in use on the Eastern Division and 31 on the Western Division. The number of cars was 1,264, of which 875 were on the Eastern and 389 in the Western Division. These cars are described as follows: Passenger, (night 4, first-class 32, and second class 3,) 39; mail, baggage, etc., (mail 4, baggage 10, express 9, paymaster 2, and caboose 3,) 59; and freight, (Diamond

line 84, box 440, box stock 47, rack stock 36, high flat 228, low flat 93, coal 234, and tool and wrecking 4,) 1,066.

The following statement compares the results of operating the road in the two years ending December 31, 1866 and 1867:

Earnings.	1866.	1867.	Difference.
Passengers, \$1,615,596 43	\$1,429,210 56	dec. \$186,385 87	
Freight,.... 1,581,476 10	1,872,428 25	inc. 290,952 15	
Miscellaneous 183,570 97	157,680 46	dec. 25,890 51	

Total, \$3,380,583 60 \$3,459,319 27 \$78,735 77

From which deduct ordinary expenses, viz:

Maintenance of			Decrease.
way, etc.	\$1,045,586 64	\$718,839 93	\$326 71 71
Motive Power, etc.	466,780 18	433,941 85	32,838 33
Transportation, ..	1,138,928 87	1,011,168 23	127,760 64
General,	115,565 75	97,30 84	18,434 91
Taxes,	109,790 82	84,486 55	25,304 27
Damages to prop.	52 671 94	50,193 26	2,478 68

Total ord'y exp's, \$2,929,324 20 \$2,305,790 66 \$623,533 54

Earnings less expenses, \$451,259 30 \$1,063,528 61

Increase, \$612,269 31

This increase of net earnings is encouraging for the future of the company. But there is yet much to be done in repairs and improvements, which must delay dividends. The extraordinary expenses on these accounts were, in 1866, \$349,286, and in 1867, \$777,073. The interest on the \$3,888,000 bonds now outstanding is \$272,160, and the dividend on the preferred stock (\$3,354,128,) \$234,788, or together, \$506,948. The residue of the net earnings for 1867, \$556,580, had it not been consumed in extraordinary expenses, would have paid 2½ per cent. on the common stock. The Treasurer's account of receipts and disbursements for the two years shows the following results:

RECEIPTS.

Earnings,	\$3,285,457 32	\$3,331,258 07
Expenses,	2,607,309 25	2,115,297 92
Earnings less expenses, ..	\$778,148 07	\$1,215,960 15
Revenue of previous years, ..	41,580 37	97,924 07
Trustees,	98,104 58	14,675 46
Other sources,	118,826 87	115,999 88
Materials used in year,	233,620 75	113,803 49
Cash on hand January 1, ..	262,077 81	225,148 46
Total, ..	\$1,433,358 45	\$1,783,511 51

DISBURSEMENTS.

Ballasting, etc.,	\$139,497 73	\$193,896 05
Cars and Engines,	129,968 51	182,689 93
L. & C. R. Co. (use of rail), ..	29,162 66	90,017 41
Miami Bridge, re building, ..	8,348 31	325,692 92
Rest of rolling power,	45,240 00	33,915 09
Real Estate,	4,700 00	16,627 10
Arrangements,	346,775 18	374,228 24
Materials on hand,	113,803 49	114,198 46
Coupons on bonds,	390,734 11	287,860 99
Cash on hand, Dec. 31,	225,148 66	154,205 50
Total,	\$1,433,358 45	\$1,783,511 51

It will be perceived that at least one-fourth of the disbursements of 1867, were on account of the re-building of the Miami Bridge, destroyed by fresher in the preceding year. The sum charged to this account is \$325,692 92. While the building was progressing the track of the Indianapolis and Cincinnati Railroad was used by the company's trains, the rent paid for which was \$90,107 41. The disbursements on these two accounts are equal to a dividend of 2 per cent. on \$20,000,000 of common stock. The following table shows the progress of the roads in their gross earnings for the period they were operated together, being a term of ten years:

	East'n Div.	West'n Div.	Total.
1858,	\$846,669 91	\$626,640 90	\$1,473,310 81
1859,	974,430 75	69,315 09	1,672,745 84
1860,	959,231 59	725,681 16	1,684,912 75
1861,	771,999 51	574,115 97	1,346,115 22
1862,	1,122,530 27	797,402 32	1,919,932 49
1863,	1,663,702 41	1,162,124 49	2,825,826 90
1864,	1,945,926 66	1,365,084 16	3,311,010 82
1865,	2,210,066 34	1,546,607 11	3,756,673 45
1866,	1,387,633 82	1,394,919 68	2,782,553 50
1867,	2,034,079 72	1,425,239 55	3,459,319 27

Columbus, Chicago and Indiana Central Railway Company.

The "Columbus, Chicago and Indiana Central Railway Company" was incorporated and organized on the 12th of February, 1868, under the laws of the States of Ohio, Indiana and Illinois, by the consolidation of the Columbus and Indiana Central Railway and the Chicago and Great Eastern Railway Companies into one corporation, and possesses all the franchises, powers, rights and privileges contained in the charters of the original companies, and such others as are conferred by the general consolidation laws of these several States.

The capital of the company amounts to twenty-eight millions eight hundred and eighty-six thousand dollars, as follows:

Consolidated first mortgage sinking fund bonds,	\$15,000,000
Second mortgage bonds of the Columbus and Indianapolis Central Railway Company,	816,000
Income bonds not secured by mort., ..	1,650,000
Capital Stock, 114,200 shares of \$100 each,	11,420,000
Total,	\$28,886,000

The roads of the consolidated company extend from Columbus, the capital of Ohio, westerly in a direct line to Indianapolis, the capital of Indiana; also, from Union Junction (a point 83 miles West of Columbus,) in a northwesterly direction, via Logansport, to Chicago, Illinois; also, from Richmond, Indiana, (a point 119 miles West of Columbus,) northwesterly to Logansport, and thence in a direct air line westerly to the State line of Illinois, and from Cambridge, Indiana, (135 miles West of Columbus,) southwesterly to a point midway between the last named city and Rushville, Ind., embracing in all about 600 miles of road.

At Chicago connections are made with all the roads diverging from that city to the Northwest, West and Southwest. At the State line of Illinois, the terminus of the line leading due West from Logansport, connection is made with the Toledo, Peoria and Warsaw Railroad, already completed and in operation to Peoria, and which is being rapidly extended to Warsaw and Keokuk, on the Mississippi River, 57 miles of the western end of this extension (the entire length being 119 miles) having been already completed, and the remainder being under contract to be finished by the 1st of September next.

At Indianapolis, connecting with existing lines, extending through Central and Southern Indiana and Illinois to St. Louis, Missouri, and other Western cities, and by the branch between Cambridge and Rushville, forming a new route to Louisville, Kentucky, and the Southwest.

The Columbus, Chicago and Indiana Central Railway possesses, with connecting roads which are completed and now in operation, the shortest route (with only one exception) between Chicago and New York, Philadelphia, Baltimore and Washington; and with existing roads likewise in operation, either from St. Louis, Louisville, Indianapolis, or Peoria, it has the shortest lines between these points and the principal Atlantic cities.

Connecting at St. Louis with the Missouri roads, and through them with the Kansas branch of the Union Pacific, and by similar connections with roads leading West from Chicago with the Omaha branch of the same great thorough-fare, a large and permanently valuable traffic from those lines will unquestionably be secured.

By a contract recently entered into between

the Indianapolis, Cincinnati and Lafayette Railroad Company, the Cincinnati and Indiana Railroad Company, the White Water Valley Railroad Company and the Columbus, Chicago and Indiana Central Railroad Company, the traffic between Cincinnati and Chicago, which has heretofore been divided at competing rates between the roads owned by these companies, and other connections, will hereafter be done wholly over the Columbus, Chicago and Indiana Central Road, from Chicago to Hagerstown, and thence over the White Water Valley Road to Cincinnati, forming a line 44 miles shorter than any other, and one which cannot fail to control substantially the whole business between those two cities.

It also possesses, with the lines now in operation, the shortest routes between Chicago and Indianapolis and Louisville. And via the new link between Rushville and Cambridge City, the shortest line between Louisville, Columbus, Pittsburg and the East.

At the date of the consolidation referred to, the outstanding first mortgage bonds, secured by liens upon the different roads owned by the respective companies, amounted to \$11,500,000, namely:

Columbus and Indianapolis Central Railroad Company,	\$3,200,000
Toledo, Logansport and Burlington Railroad Company,	800,000
Union and Logansport Railroad Company,	2,000,000
Chicago and Great Eastern Railroad Company,	5,500,000
Total,	\$11,500,000

which it is desirable to consolidate into one single issue, secured by a first mortgage upon the entire road, property and franchises of the company. To accomplish this object, and to provide the means that are necessary to more fully equip its roads and perfect property in all its parts, the company has executed a deed of trust to James A. Roosevelt and William R. Fosdick, of the city of New York, Trustees, to secure an aggregate issue of fifteen millions of dollars of "Consolidated First Mortgage Sinking Fund Bonds," maturing in forty years, (A. D. 1908,) bearing seven per cent. interest, payable semi-annually, on the first days of April and October in each year, principal and interest payable in the city of New York, a sinking fund being provided sufficient for their redemption before maturity.

Of these bonds, eleven and one-half millions are to be expressly reserved and deposited with a special bond commissioner, to be issued only to redeem and retire all the existing first mortgage bonds secured by liens upon the different divisions of the company's roads; the remainder, three and one-half millions, the company propose to negotiate for the purpose before stated.

The length of the roads of the original companies in operation previous to the recent consolidation was 474 miles, the net earnings of which, in 1867, were \$939,391 52. The completion of the new division between Union Junction and Logansport, (113 miles,) built and owned by this company, perfects the new short lines to Chicago and Peoria and points beyond; and the new link between Cambridge and Rushville (23 miles, one-half of which was built by this company) perfects the new short route between Louisville and the East. Neither of these important lines have yet been in operation, but they will both be opened for through and local traffic as soon as thoroughly ballasted, (probably within the next sixty days,) and must very largely increase the aggregate earnings of the company, and make them fully equal per mile to those of any of the great trunk lines of the Western States.

The annual interest at seven per cent. upon the \$15,000,000 of consolidated first mortgage bonds is \$1,050,000
Annual appropriation to sinking fund..... 75,000

Total required for interest and sinking fund..... \$1,125,000

Estimating the gross earnings of the company's roads at only \$5,000,000, (or \$3,333 per mile, which is much less than the present earnings per mile of competing lines) and estimating the operating expenses at 65 per cent., the net revenue of the company would be \$1,750,000, or more than 50 per cent. in excess of the sum required to meet these payments.

That the company's traffic will be largely in excess of this estimate, and that its net revenues will provide for the interest on its bonded debt, the annual appropriation to the sinking fund, and liberal dividends upon its common stock, the Board of Directors entertain no doubt whatever. By order of the Board,

B. E. SMITH, President.

New York, March 30th, 1868.

The Precious Metals.

The Secretary of the Treasury has transmitted to Congress J. Ross Browne's report on the mineral resources of the States and Territories West of the Rocky Mountains. This work has been in progress upward of a year, and embraces a complete summary of everything essential to a correct understanding of our great mining interests, including the geological formation of the mineral belts, the number of mines in operation, their yield and condition, the treatment of ores, and some general considerations of the precious metals. The report will make about 600 printed pages. Mr. Browne estimates the yield of the States and Territories for 1867 as follows:

California.....\$45,000,000	Colorado ... 2,500,000
Nevada ... 20,000,000	N. Mexico... 500,000
Montana... 12,000,000	Arizona... 500,000
Idaho..... 6,500,000	Miscellaneous..... 5,000,000
Washington..... 1,000,000	
Oregon..... 3,000,000	Total.....\$75,000,000

The entire product of the precious metals from 1848 to January 1, 1868, is estimated as follows:

California.....\$900,000,000	Nevada.... 90,000,000
Montana... 65,000,000	Miscellaneous... 45,000,000
Idaho..... 45,000,000	Retained for plate, jewelry, etc..... 50,000,000
Washington..... 10,000,000	
Oregon... 20,000,000	
Colorado... 25,000,000	
N. Mex. & Arizona 5,000,000	Total.....\$1,255,000,000

Placer mining is on the decline. Vein or quartz mining is progressing favorably. A general decline is observed in the bullion product. The population actually engaged in mining has greatly diminished in the past few years, and does not now exceed 50,000. Agriculture, manufactures and commerce are assuming the preponderance over the mining interest. The area of land suitable for cultivation is much larger than was originally supposed. Important results are anticipated from the completion of the Pacific Railroad. The miscellaneous minerals of the Pacific slope are elaborately described. Copper mining is in a depressed condition; also quicksilver. The report embraces detailed descriptions of the mineral resources of California, Nevada, Utah, Arizona, Montana, Idaho, Washington Territory and Oregon. Interesting statistics are also given of the history and condition of the mining interest in Europe, Mexico, South America, Australia and British Columbia.

Decision in Supreme Court of Pennsylvania in Matter of Capital Shares of the Erie and Pittsburg R. R. Co., 1867.

CURRY vs. SCOTT et al. In Equity—Supreme Court of Pennsylvania. Demurrer to the Complainant's Bill.

STRONG, J.—The objects sought to be attained by the bill are mainly such as are attainable by a writ of quo warranto, and it might perhaps be questioned, whether they can be secured in a court of equity. A portion of the relief sought, however, is such as a court of law cannot give, and it is not assigned as one of the grounds of the demurrer that the plaintiff has an adequate remedy at law. We proceed, therefore, to inquire whether the bill exhibits a case entitling the plaintiff to relief.

It avers in substance that the Erie and Pittsburg Railroad Company, of which the plaintiff is a stockholder, having a portion of its authorized capital stock undisposed of, prescribed a time and manner for subscription of that which had previously remained untaken; that afterwards, and so far as it appears, at the time and in the manner prescribed. John Van Cullom, one of the defendants, subscribed for all the stock that remained untaken, to-wit, 7,460 shares; that the company received his subscription; that he then paid on account of each share five dollars; that the company issued certificates of stock for the stock thus taken; and that at the annual election next succeeding he was permitted to vote said shares. It is not averred that there was any fraud in the subscription, or that the plaintiff or any other person was denied the privilege of subscribing, or that the stock taken by McCullom, was worth more than its par value at which he took it; but the bill rests upon the assumption that the directors of the company had no power thus to dispose of their untaken stock, and that McCullom could not thus acquire the rights of a stockholder to vote at an election. The bill also avers that an act of Assembly was passed on the 10th day of February, 1865, by which it was enacted that the Board of Directors of the Erie and Pittsburg Railroad Company be authorized to receive subscription for all or any part of the unsubscribed stock of said company, under such regulations as to time and manner of such subscription as said directors should prescribe, any law or usage to the contrary notwithstanding; and that the subscribers to said stock should have the same rights in said company, as if they had been original subscribers thereto: Provided that any person subscribing therefor should pay, at the time of subscribing, five dollars on each share so subscribed. But the plaintiff insists that this act is of no force because it is an unwarranted infringement upon the rights of those who were stockholders at the time of its passage. And much of the argument has been expended in assailing and sustaining the validity of the enactment. We are of opinion, however, that the discussion was unnecessary, for without the act the directors of the company had power to receive subscriptions for all the untaken stock, and issue certificates therefor, and the moment this was done the holder became a stockholder and entitled to the rights of a stockholder. The company was incorporated without any appointment of commissioners to receive subscriptions for stock, but it was enacted that the stock should consist of twenty thousand shares of fifty dollars each. It was not required that any portion of it should be subscribed or paid in before the organization of the company, but the corporation was endowed at once with all the rights and privileges conferred by the General Railroad Act and its supplements. Of course subscriptions for stock were authorized after the organization until after the authorized amount had been taken. And what else do

new subscribers become than stockholders, having equal rights with others? The law authorizes no distinction between the rights of one stockholder and those of another. If one has not paid his subscription in full, he is a debtor for so much as remains unpaid, but he is none the less a shareholder.

It is insisted, however, that the directors had no right to allow McCullom to subscribe and thus obtain the untaken stock, because it belonged to the old stockholders, and it should have been sold for their benefit, or they should have been allowed to take it in proportion to the shares they held. It would be a sufficient answer to this to say the bill does not allege that the plaintiff or any of the old stockholders offered, or that they are willing to take it at par, nor does it allege that the stock could have been sold at a higher price than par. It therefore sets forth nothing that is injurious to the complainant. But when it is said that the untaken stock belonged to the old stockholders, more is meant than can be admitted. In a certain sense the assertion is true; but it is not to be admitted that an old stockholder had a right to subscribe to the untaken stock superior to the right of one who owned no stock. If this were so, a first subscriber might compel all the remaining untaken stock to be sold, or, at least, would have a right to exclude any other person from subscribing. The cases upon which the plaintiff relies, are inapplicable to the case now in hand. In *Gray vs. The Portland Bank*, 3 Mass. 364, it was held that when a banking company had been incorporated with a capital not less than one sum and not greater than another, and had commenced business with the smaller capital, and afterwards voted to increase it to the largest, those who held the stock in the capital first raised, had a prior right to subscribe to the new stock. The case was really decided by two judges of a court consisting of five, but assuming its ruling to be sound law, it is unlike the case we have. Here is no increase of capital, but a filling up of one both authorized and required. This is a substantial difference. So the case of *Reese vs. The Bank of Montgomery County*, 7 Casey 78, decides nothing more than untaken stock is held by the corporation in trust for the corporators, and must be disposed of for the benefit of all; that it cannot be disposed of unequally to the corporators, and that if so disposed of, each corporator injured may have his action against the corporation. Neither of these cases decides that a stockholder has any greater right than a stranger to subscribe to original stock untaken, and we are unable to see why the directors of the Erie and Pittsburg Railroad Company could not permit McCullom to subscribe for all the untaken stock, why they could not issue certificates to him when he had subscribed, and why, having become thus a stockholder, he could not vote at an election. The act of 1865 was, then, unnecessary. It was but a re-enactment of that which had been previously enacted.

The bill also assails another act of Assembly, passed on the 21st day of March, 1865, by which the Board of Directors of the company was authorized to issue preferred stock. It avers that the plaintiff never agreed to any such issue, that the act was procured without his assent, and that he did not know of its passage until months after it had been enacted. It also charges that it is the intention of the company to issue such preferred stock. But why this is illegal, or how it is injurious to the plaintiff, the bill does not show. Doubtless the act of Assembly did not effect an alteration in the charter until accepted, but the bill does not deny that it was accepted by the stockholders. It admits it was by the Board of Directors. Clearly if accepted by the stockholders, the directors are authorized to issue preferred stock, and their doing so is no wrong to the

complainant, though he may be opposed to their action. It is not to be questioned that, the Legislature may confer enlarged powers upon the managers of a corporation with the assent of the shareholders, and that no one stockholder by refusing his assent can hinder the exercise of the enlarged powers.

From what has been said it will be seen that, in our opinion, the plaintiff's bill exhibits no case calling upon a court of equity to grant him relief. The demurrer must therefore be sustained and the bill dismissed.

Let a decree be prepared sustaining the demurrer and dismissing the bill with costs.

The Steel Question.

The question of making steel in large quantities, by an economical process, out of comparatively poor ores, and thereby at a moderate cost, is now being practically discussed in real earnest. The subject is not confined to the laboratory or the iron works, but it has found its way to "the place where merchants most do congregate." This week, at the weekly meetings on "Change of the ironmasters in the Middlesborough, the Birmingham and the Wolverhampton districts, respectively, we learn that specimens of steel, cast and rolled, were exhibited, and their merits discussed. None of it was produced by the Bessemer process, nor had it been made after the older method of the crucible. The two processes to which the samples were due were, the first, Jones's (samples shown by Messrs. Fox, Head & Co., of the Newport Iron works, Middlesborough); and that of Gjer's process (samples shown by Messrs. Lloyd & Co., of the Linforth Iron works, also at Middlesborough). This is the first time that specimens under the last-named patent have been exhibited. Messrs. Fox, Head & Co. not only showed a piece of cast-steel that had been cut off while hot to try its hardness, but also steel plate of one-eighth of an inch thick, which had been run from the furnace into a bogie. Messrs. Lloyd & Co.'s samples were cast-steel. As was to have been expected, great interest was displayed in the castings alike at Middlesborough, Wolverhampton and Birmingham. They were examined by men who were well up in the knowledge of what steel should be; and previously a steel made from the Cleveland iron, as all these had been, had been tested by a maker of steel of considerable mark in that part of the Kingdom, and it had been pronounced equal to the very expensive metal produced by the costly Bessemer process.

Makers of steel, who have hitherto been dependent upon the crucible process, and who in that process have made large sums of money, are now beginning to look about them for a method by which metal can be obtained in larger quantities, in shorter time, and at less cost than by the old method. They are not prepared to take up the Bessemer patent, because they believe in the possibility of making steel in a much less cumbersome fashion. They feel that the process they seek must not be dependent upon the best ores; but, above all, that they desire to avoid the re-heating. Steel must be made direct from the furnace in which the ore is smelted. Experiments are being made in Staffordshire and Cleveland with this view, and, perhaps, in any other iron-producing district of the kingdom, and approaches to perfection are being made every week. We need not repeat the large number of processes out with this view, but every practical man will concur with Dr. Platt, who, writing in 1886, and talking of the attempts at Wednesbury to build furnaces to make iron from the flame of coal, said that "experience is the great baffler of speculation."

Still, as the blast-furnace of the present day

has become a success, notwithstanding that "Mr. Blewstone, a high German," as Dr. Platt called him, was unsuccessful in his furnace, "so ingeniously contrived that only the flame of the coal should come to the ore, with several other contrivances, that many were of opinion that he would succeed in it"—so the chemists and the mechanicians of the present day who are turning their attention to the making of steel will soon be equally successful, and steel will be produced in larger quantities and at a cheaper cost out of the ores which are most in abundance in this country. The science of chemistry is now being applied to the production of iron and steel to an extent not hitherto dreamt of. Up to this time chemists have not had any experience in dealing with huge quantities, but such a laboratory is now supplied at some of the great ironworks in the Cleveland and Ulverstone districts is enabling them to arrive at results of a much more practical character than those which they thought they had arrived at in their tiny experiments. No ironmaster who is moving with the times now dreams of making experiments without the assistance of the chemist, and chemists are now attached to all the great steel-works. The results already arrived at would seem to point to the conclusion that wherever ore is most abundant and fitted for making iron, there, too, steel will be produced most economically and successfully. Mixtures will, however, still be necessary to turn out a reliable quality of steel, even as they are necessary to produce the most serviceable quality of iron.

At all works of great celebrity steel is now being made by the Bessemer process, which by reason of its irregularity has proved very disappointing, the failures having been much more numerous than those usual at any manufactory where steel has been made a longer time, though by no means on so large a scale, although the makers have used the same process—the Bessemer. We attribute the failures more to the absence of mixtures than to any other cause, because in the one instance one kind of material is in abundance, whereas in the other ingots have to be purchased, and it is immaterial where they come from. All this, however, shows that we are in reality at an experimental stage; nevertheless, the very important subject is taken up with a will and a determination which must lead to success, and steel be produced in abundance and at comparatively low prices. When this has been done the coal question will not produce the anxiety to which in many quarters it has recently given rise.—*London Mining Journal, February 22.*

FLAWS IN IRON.—A correspondent says: "The Saxby method of detecting, by means of the magnetic needle, internal flaws, false welds and changes or disruptions in the crystallization in bars of iron, shafting, railroad car wheels, axles, &c., not discoverable by visual examination, is said to be as follows: Place the article to be examined in a horizontal position with its ends East and West; then take a delicately poised magnetic needle of the kind frequently carried by travelers, and move it in a straight line with a uniform but not too slow a motion from one end of the article to the other; then move it back again and repeat the operation several times. If the needle be properly balanced, and no deviation from its North point takes place, the electric current in the article is regular and continuous, showing an absence of flaws, &c.; but if the needle deviates at all, note the point where the deviation takes place, and over it move the needle to and fro several times, and its deviations will indicate the exact spot where the change or disruption in the electric current occurs, and by cutting it, there will be found the cause."

Liability of Railroad Companies in Pennsylvania for Injury and Loss of Life from Accidents.

An act relating to railroad companies and common carriers, defining their liabilities, and authorizing them to provide means of indemnity against loss of life and personal injury.

Be it further enacted, &c., That when any person shall sustain personal injury or loss of life while lawfully engaged or employed on or about the road, works, depots and premises of a railroad company, or on or about any train or car therein or thereon, of which company, such person is not an employee, the right of action and recovery in all such cases against the company shall be such only as would exist if such person were an employee.

Provided, That this section shall not apply to passengers.

Section 2. That in all actions now or hereafter instituted against common carriers or companies owning, operating or using a railroad as a public highway, wherein steam or other motive power is used, to recover for loss and damage sustained and arising either from personal injuries or loss of life, and for which by law, such carrier or corporation could be held responsible, only such compensation for loss and damage shall be recovered as the evidence shall clearly prove to have been peculiarly suffered or sustained, not exceeding, in case of personal injury, the sum of \$3,000, nor in case of loss of life the sum of \$5,000.

Section 3. That it shall be lawful for such carrier or corporation to insure the lives and persons of passengers against loss or injury from accidental causes, and however happening, while in their charge, and for that purpose to issue and sell to such passengers applying for the same, tickets or policies of insurance, specifying the name of the insured, the premium charged, the particular trip, or time covered by the policy, and the amount insured, not exceeding (except at the option of the said carrier or corporation) the sum of \$25 for each week of disability, for a period not longer than twenty-six weeks, in case of personal injury; not more than \$10,000 in case of death, and all premiums so received shall be kept separate and apart from the other receipts of said carrier or corporation, and shall not be liable for any other claim, debts or demands against such carrier or corporation than those arising out of said policies, and the amount of said premium; and the securities in which the same are invested for the benefit and protection of such policy holders shall be reported to the Auditor-General annually as a part of the operations of such carrier or corporation as is now provided for by the act entitled "An act to require railroad companies to make uniform reports to the Auditor-General," approved April 4, 1859. *Provided,* nevertheless, that it shall be lawful for any such carrier or corporation, in lieu of issuing tickets as aforesaid, to keep on sale at their office the policies of insurance or indemnity against personal injury or death resulting from accidental causes, issued by insurance companies incorporated for any such purposes as shall have actual bona fide cash capital invested in securities approved by the Governor, State Treasurer and Auditor General of this Commonwealth of at least \$200,000. *Provided,* that a recovery upon any policy issued or sold under the provisions of this act shall be no bar to a recovery under the provisions of the second section of this act.

Section 4. That all acts or parts of acts inconsistent herewith, be and the same are hereby repealed, and any provisions in the acts incorporating such common carriers or corporations inconsistent herewith, shall be

repealed upon the acceptance of the provisions of this act by such carriers or corporations, and upon the acceptance of the provisions hereby by any carrier or corporation, the same shall become a part of its act of incorporation.

Approved the 4th day of April, 1868.

JOHN. W. GEARY, Governor.

KNOXVILLE AND KENTUCKY RAILROAD.—President Mayberry, of the Knoxville and Kentucky Railroad, who is now in the city, informs us that he has let out the line of the road to the State line, with the exception of a gap of nineteen miles, which will be let out next month. President Guthrie of the Louisville and Nashville Railroad, told him, in a late interview, that he would build his end of the road to the Tennessee border as rapidly as possible, so that the connection will be made in about eighteen months. The road will be of immense benefit to both States, and will give a powerful impulse to the farming and mining interests of East Tennessee. —*Nashville Times.*

The receipts of the Western Union Railroad Company for the week ending April 21:

	1868.	1867.	Inc.	Dec.
Freight.....	\$6,722 81	\$5,758 18	\$964 63	.....
Passengers..	3,249 65	3,364 35	.....	114 70
Express and Tel..	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$10,697 46	\$9,817 53	\$879 93	\$114 70
Decrease.....				114 70

Total Increase. \$879 93

Receipts from January 1, to April 21:

1868.....	\$157,835 40
1867.....	130,213 06
Increase.....	\$27,622 34

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2 3/4 inches in width, and under. For Tickets over 2 3/4 inches in width.

SIZE NO. OF FORMS.	PRICES.	SIZE NO. OF FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
O. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indiana
Aug. 2, 1886.]

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"	Dayton.....	8,20 ".....	9,15 "
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"	Leavittsburg.....	4,40 ".....	7,30 "
"	Meadville.....	7,05 ".....	10,15 "
"	Susquehanna.....	7,30am.....	10,38pm
"	Paterson.....	2,33pm.....	6,17am
"	New York.....	3,15 ".....	7,00 "
"	Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS.

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. E.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:12 p.m.; Easton at 1:10 p.m. Through cars from Harrisburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

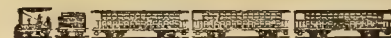
2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive.
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

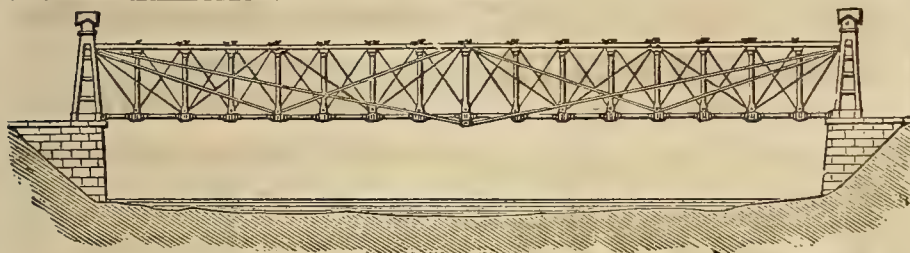
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

*Productive Wells all
around them.*

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

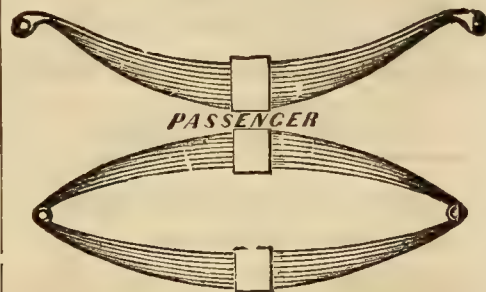
—AND—

MACHINERY OF EVERY DESCRIPTION

47 West Front St., Cincinnati.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER

LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel. Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for

Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT.

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio River and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac At Baltimore with four daily trains for Philadelphia and New York

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the ONLY ROUTE by which passengers can procure through tickets and through checks to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore

J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.

L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 01 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY, (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave	Arrive.
Lawrenceburg Accommodation.....	10.00 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

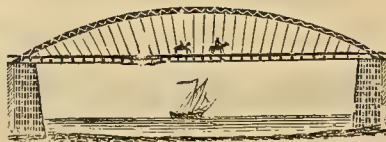
MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—from 1½ to 24 inches in diameter, and branches for same. &c., &c.

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS,

THOS. T. TASKER, JR.,

CHAS. WHEELER

S. F. M. TASKER

BY G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at time for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

CINCINNATI, THURSDAY, MAY 7, 1868.

Cincinnati—Its Improvement and Taxable Property.

Mr. WILSTACH, Mayor of Cincinnati, has made an Annual Report, which commends itself to the good sense of every man connected with the growth and condition of this city. It has two leading ideas; 1. That there are some great public improvements which the city needs; and—2. That the increase of taxable property is such, that the city can afford to make these improvements, by borrowing money, and can pay it all off in reasonable time. Now these propositions being assumed as true, we say, that these improvements *ought* to be made. The great question in all such plans is, undoubtedly the financial one. To increase taxes beyond a certain amount will not do; for a burden on property greater than is borne by other cities will tend directly to stop the growth of a town. But, if the taxable property increases in amount faster than the rate of taxation, then there is no difficulty. The amount raised or borrowed may be increased up in proportion to the rate of taxation. This is the plan of Mr. Wilstach, to borrow the money needed for the improvements and provide for the interest and sinking fund out of the increased taxation produced by the increased value of property. We have not now before us the Message of the Mayor; but will illustrate a little from the reports of other officers, the increase of wealth and business, from which a safe estimate may be made of the future basis of taxation. From the Reports of the Auditor of State, we take the following valuation of taxable property in Hamilton County for twenty years. Cincinnati is now five-sixths of Hamilton County, and nine-tenths of the people of the county belong in some way to the city; so that the taxable property of the county may be taken as a fair representative of that of the city.

Taxable property of Hamilton County—

In 1840.....	\$9,493,365	Increase.
" 1845.....	12,442,091	33 per cent.
" 1850.....	55,670,631	350 "
" 1855.....	112,945,414	100 "
" 1860.....	119,508,170	6 "
" 1865.....	135,000,000	15 "

It will be seen that the increase for the last ten years is comparatively slow; but this is an illusion, entirely owing to the false and variable modes of valuing property by the Assessors. There is no question, that the actual *selling* value of property in Hamilton county now exceeds \$250,000,000; but whether that will be made to appear on the Assessors' books, is very doubtful. But, taking the assessments as they actually are, the increase per cent. from 1850 to 1865, fifteen years, is 140 per cent., or nearly 10 per cent. per annum; and there is no doubt this increase will continue, for Cincinnati was

never more prosperous than it is to-day. We have then the simple fact, that the city will *double the value of its property in ten years.* Suppose then we allow for an increase of expenses at *half* that rate, and take the other half for the interest on money borrowed for public improvements, what result shall we have?

The present receipts are \$3,652,000, which is raised by a levy of 20.00 mills (2 per cent.) on property, and some incidental charges. This was raised on an assessed valuation in 1867, of about \$160,000,000. The valuation of 1877 would (at the annual increase of 10 per cent.) be \$320,000,000. Keeping the same rate (20 00 mills) the income of 1877 would be \$7,200,000, or an annual increase of \$360,000; now take half that, \$180,000 per annum for expenses, and half \$180,000 for interest, and we have the interest of \$3,000,000 of debt provided for, without any need of additional taxation. If we take twenty years into consideration (starting with the new basis of 1877), we have \$6,000,000. Assuming then the average growth of Cincinnati as the element of calculation, the city can borrow *three millions each ten years*, without paying an extra dollar. But we have left out one of the most important items in the calculation. This is the additional value to property given by the improvements themselves. Nothing is better known, that great city improvements, such as water works, parks, avenues, etc., greatly increase the value of property. The Central Park alone has increased the value of property in the middle of Manhattan Island, more than one hundred millions of dollars. The Croton Water Works cost over twelve millions of dollars, and who can estimate the value given to the property of New York by these Works? Hence, we think it would be moderate to estimate the growth of values by parks, avenues, pavements, etc., under a new system of improvement at double the ordinary rate of increase. In that case a new debt of six millions might be added without one dollar of new burdens. Mr. W. by a different process, arrives at almost the same conclusion. He says:

The annual levy made to pay off the debt, of one mill on the dollar on the grand duplicate, produces \$136,000 annually. This, of course, will be increased by the new revaluation of next year by about 33½ per cent. Up to the time the last series of the present bonded debt matures (1908), this one mill will have produced (including \$30,000 per year from licenses and \$8,000 per annum from interest saved by the purchase and redemption of bonds), aggregately a sufficient sum to liquidate every dollar of the debt, and a surplus of over five millions of dollars besides. To illustrate:

Revenues from taxation to 1908, including estimated increase after revaluation	\$7,253,000
Estimated revenue from license receipts, \$30,000 per annum.....	1,200,000
Actual revenue derived from reduced interest in redemption of city bonds before maturity.....	320,000
Which will produce a grand total of.....	\$8,773,000
Present bonded debt.....	\$3,459,500
Leaving a surplus of.....	\$5,313,500

Five millions the city can borrow, pay the interest of, and *pay off*, without increasing the taxation *one dollar!* This five millions do all that is really necessary to be done for several years. It would buy a park of ample dimensions (say 1,000 acres), fence it, and make the immediate improvements; finish the Work-house; finish the avenues and make all minor improvements, and would be amply sufficient. We have left out of view the extension of the Water Works, because the Water Works yield a revenue and pay interest on their own debts. They provide for themselves. We say, therefore, that the city should borrow \$10,000,000; a part of the interest of which will be paid by the extension of the Water Works, and part provided for in the manner we have above demonstrated. The city debt would then amount to, say, \$14,000,000, and the valuation of city property would then be not less than \$300,000,000; and the whole debt would soon be extinguished by a very small tax for a sinking fund. No time can be better than the present for commencing these operations. Property will not get cheaper. The need of fresh air and recreation will not be less; and the pressure for these improvements will increase with every year. Let the park be bought; let the avenues be laid out; the Work-house and Hospitals completed, and in one word, the city be furnished with a first-class outfit.

Cincinnati and her Railroad Interests.

ANNUAL MESSAGE OF MAYOR WILSTACH,

His Endorsement of the Southern Railroad Project.

The present incumbent of the responsible position of Mayor of Cincinnati, Hon. CHAS. F. WILSTACH, is a citizen who has grown up with the city, and being a practical, common-sense man, has a keen appreciation of the city's growing wants as well as a deep interest in the future greatness and prosperity of the city that has not unworthily honored him with the position of "*first citizen*." Of the necessity for making a direct connection with the great system of railroads traversing the Southern States, and the practicability of the plan recently suggested and now attracting so much attention, Mr. WILSTACH, in his annual message delivered to the Common Council at its meeting on May 1st, says:

A SOUTHERN RAILROAD.

This enterprise is just now receiving attention in business circles. I conceive it to be a matter of vital importance to the continued growth and prosperity of our city, and one that must, sooner or later, be accomplished, if we desire to enjoy and maintain our present rank as a city. A railroad connection with the States of Tennessee, Georgia, Alabama, North and South Carolina, and Louisiana, would open up a vast and highly remunerative traffic, which would return to the coffers of our business men thousands of dollars for every dollar given toward its construction.

One of our most intelligent citizens, Samuel H. Goodin, Esq., has demonstrated, I think very clearly, that the road can be made a conceded fact if the business men of Cincinnati will only subscribe a sum less than one-fifth of one per cent. on the \$136,000,000 of taxable property of the city—say \$250,000; and that in less than two years freight and passengers could be delivered at Charleston, Savannah, Pensacola, Mobile and New Orleans, without break of bulk or change of cars.

I trust your honorable body may view this matter in its proper light, and by some demonstration of approval, do all in your power to induce our business men and capitalists to embark their spare means, in this important enterprise.

Cincinnati must not lag behind other cities in this day of great enterprise. She has the solid wealth, and must use it to keep the city on the onward track to a still higher destiny.

Now, we are well aware, and so is Mr. W., that the city is, in its corporate capacity, wholly prevented from taking any interest in this great enterprise; and of course he does not contemplate for a moment a violation of the State Constitution. But great good is and can be accomplished by the city authorities in the moral support thus given to the scheme of S. H. GOODIN, Esq., by His Honor, Mayor WILSTACH; and we doubt not, that the entire Council would render very material service, in organizing and canvassing their respective wards so as to render the scheme effective.

TO COMPLETE OUR RAILROAD SYSTEM

There is, however, one thing that our City Council can do; that is, furnish the most perfect and complete THROUGH CONNECTION between the various roads centering in the city. Next to the direct connection with the South, this is the most important feature necessary to the success of our railroad system, and without which we will still be outside the direct route of travel, and Cincinnati remain but a "switch station." Although the extension of her local system of roads would in a measure increase her trade; yet to bring it up to that degree of magnificence that her natural and geographical position entitles her to, she must remove all obstructions and grant free transit of goods as well as passengers, without subjecting either to unreasonable and unnecessary delay, as well as the nuisance of the omnibus and the dray.

There is no important city in the world whose natural railroad avenues are more cramped and crowded than are the approaches to Cincinnati, and unless we are fully satisfied that we have all the railroad facilities that are necessary or desirable, or that the encircling hills are an impassable barrier, con-

fining the growth and progress of the city, and that she has and controls all the business that she desires, other avenues will have to be opened, and other territory made tributary to her trade, and the facilities for interchange of traffic rendered as simple as possible.

To accomplish this purpose it is desirable that all the roads should be able to interchange traffic at one common center, and that the access to it should be free, unobstructed and devoid as far as possible from the innumerable nuisances attendant upon street traffic by steam. That the interchange of passenger traffic should be as near the centre of the city as possible while more ample grounds for the exchanges of freight could be better secured upon the Western bottom forming the basin of Mill Creek.

Now, as we have before said, that while the city, as a corporate body, cannot aid, directly or indirectly, in the construction of any great public work, no matter how great the necessity, yet there is no Constitutional provision to prevent her engaging in and completing any enterprise alone, or in which the city will have no partners. Here, then, is a highly proper and legitimate work of internal improvement, entirely within the corporate limits, perfectly feasible, and essential to the city's welfare and the development of her highest interests—the extension of her commerce and the increased demand for the products of her labor. Then why not the city construct it? Call it tunnel—call it sewer—call it underground railway—or underground bazaar—or anything else—but let us have a practical through connection. The city, of itself, can do this, and

let the roads have the benefit of it, and devote their energies to the extension of their traffic and the increase of territory subject to the trade of Cincinnati.

The tunnel, or avenue, for this THROUGH CONNECTION should extend under Sixth street, commencing just East of Broadway and terminating East of the C. H. & D. Railroad Depot, with the Sixth street market space and the property South of it to Longworth street condemned for Passenger Depot purposes. We have, on a previous occasion, given a diagram illustrating the project, and to enable those who have not heretofore had their attention drawn to the subject to better comprehend the importance and practicability of its construction, we reproduce the map of the city, fully illustrating the plan.

The construction of this avenue would not cost the city over \$750,000—with double track, ready for the passage of trains, while the cost of depot grounds and superstructures can be calculated by those who should bear the cost—the Railroads.

If this were completed, in connection with the contemplated railroad bridge across the Ohio river, the transit through Cincinnati could be made as cheaply as to pass around the city over the by paths by which the business is now done—it would insure the completion, and make available for general railroad purposes the now dormant Tunnel entrance to the city, and would center a railroad interest and power in the welfare of Cincinnati that she has never heretofore possessed, by constituting her railroad sections in trunk lines, and give an impetus to her growth that would astonish those who are not familiar with tracing the legitimate results of cause and effect.



Railroads to the Pacific.

Interest and Duty of Government to Aid in their Construction.

How and How Much?

If the American Republic is a unit, and certainly the bloody arguments of the past few years are sufficient to demonstrate the views of the American People on that subject—if the right of *eminent domain*, for which such sacrifices have been made, is to be maintained from Maine to the Gulf of California, and from Florida to Puget's Sound—if the People of the now "first nation of the Earth," who have become such, under the spreading wings of the American Eagle, and glorious banner of the American Republic are to remain one—the closer and more intimate their relations of kin, of common sympathies, of general intercourse, and of interest, the better. There is no other nation whose great antipodes of population are so far apart, separated as it were by an ocean of inaccessible territory, that is safely traversable only by immense caravans, at great cost and danger, or subject to the transit over two oceans and the malaria of the tropics. Yet other nations, to develop their *colonial* interests, or for great military reasons, either construct or aid in the construction of vast systems of railroads through territory not owned by the government. Individual enterprise has bisected our country East of the Mississippi with railroads in every direction, because they are made through individual property; and we ask who will say that the value of the property through which they run has not been thereby enhanced quadruple. Now let us inquire who has received the benefit of this increase in valuation. Why, *first*, the owners of the land; and *second*, the government in the increased resources and basis of taxation.

In the construction of the great continental railways, from the Mississippi to the Pacific no such results will accrue, there is but one land-holder to be benefited, but one estate to be improved—the public domain—the people's estate—the property of the government. For all the purposes of civilization, this vast domain, alone equal to half a dozen first-class European monarchies, is now inaccessible—of no practicable use or value. This vast empire, unlike that East of the Mississippi, is not traversed with navigable streams and intersecting water courses available for the purposes of commerce and locomotion. Hence the absolute necessity for those modern artificial avenues that are the great distinguishing features of the nineteenth century—railroads. This is the *interest* view of the question—the development of territory—the improvement of the People's Estate—and let

the view be taken in its most limited sense, and the judgment of the intelligence of the American People will unanimously decide that *it will pay*.

But this is not all. By the projected system of railroads across the continent—*first*, on our Northern frontier, from Lake Superior to Puget's Sound, we will not only develop the territory through which it is to be constructed, supplying them with goods and machinery for mining and agricultural purposes and the mechanic arts, but the Saskatchewan and Red River countries of the Hudson's Bay Territory will become Americanized, we will supply their wants, transport their wheat to tide water, they will become assimilated to us in their interests, and the whole Territory, equal to half a dozen States, will fall into our hands like ripe fruit.

Second—The Central route—of this it is needless to speak—it has become a fixed fact—although its results are but dimly seen in the future, yet enough is known to satisfy the most skeptical that all will be accomplished by its construction that its most enthusiastic advocate has ever claimed.

Third—The Union Pacific, E. D., or Southern route, running over the old traveled route of trade to Santa Fé, through the rich mineral regions of New Mexico and Arizona, and drawing to it the trade of the Northern States of Mexico, building up States and Territories in its pathway, and paving the way for acquisition of contiguous territory now ready to be absorbed.

When these shall all be completed, how shall we compute in advance, the increased valuation of our territory and new basis of taxation, as well as the increase of agricultural products and the precious metals.

THE MILITARY NECESSITY

For the construction of all, is now, with our leading Generals, no longer a disputed problem. This has been fully demonstrated in the use of what is already constructed. Every fifty miles of finished road is reported as equivalent to dispensing with the services of a regiment of cavalry costing \$2,000,000 per annum. If we can dispense with but three regiments of troops to each route constructed, the government will SAVE the interest on more than the entire amount of its loans of credit for the construction; and according to Franklin's rule "a shilling saved is two earned." We thus get not only an increased basis of taxation, and an increased production of the "kindly fruits" and precious metals of the earth, which is an increase of all real wealth, but we also have positive economy in the expenses of the government, besides the prospective advantages of increase of territory.

HOW SHALL THE GOVERNMENT AID

In the construction of these roads, is a question that still admits of a difference of opinion. That the amount of aid granted to the

Union Pacific, considering the character of the security given for it, (second mortgage) is not without a good showing of plausibility, perhaps too much. But, it is better, even at this cost, that we get the roads, than that the roads should not be made, even should the government lose the entire amount of their obligations loaned. The theory of granting bonds, however, is wrong, as the government has to assume liability for both interest and principal; whereas the fund loaned may just as well be made to pay the National Debt, without liability for interest on the part of the government, and the very best of security obtained for the return of the principal. We have on several occasions suggested that the true way to aid in the construction of the Pacific Railroads, was for the government to grant money—greenbacks—instead of bonds, on which no interest has to be paid, while the demand for an increase of the currency has been made by both political parties, to give a stimulus to trade and grease the wheels of labor. With the "working men" this would be a popular move, as it would not only furnish the "motive power"—capital—in a gentle, steady current, but would also create a remunerative demand for the products of the forge, the anvil, and the loom, as well as vastly spread the area devoted to agricultural productions, cheapening the "staff of life," and furnish protection and give an impetus to the production of the precious metals, that would be unprecedented, even in the first discovery of the gold fields of California.

HOW MUCH AID

The government should grant, can best be determined by the knowledge and wisdom of Congress; but if it is true, as is now claimed by some, that too much aid is given, let the amount be fixed with a due regard to economy and safety. The amount of aid now granted the Central and Union Pacific Roads is by the government, \$16,000 per mile on the plains, with a first mortgage to other parties of \$16,000 more; making in all \$32,000 per mile, the government receiving only the second mortgage, while the first passes into the hands of capitalists. These amounts are doubled in the mountain districts. Suppose the government should loan \$16,000 or \$20,000 of greenbacks per mile for work on the plains, and double that amount in the mountain districts, taking the first mortgage on the road. Then if more money is needed let the company issue "Land Grant" Bonds, receivable at any time in payment for the lands of the company, and secured by a mortgage on the lands and a second mortgage on the road. This would give the latter bonds a market value, and create a demand for them both at home and in Europe, for the purposes of emigration.

A SINKING FUND

Should be created by the first mortgage bonds thus obtained; which, with other funds, that,

in the discretion of Congress, might be added to it, would in twenty years pay off the entire National Debt, without an increase of taxation, while the increased basis for taxation would be at least quadrupled, the current of the Oriental and Pacific trade made to flow across our country, enriching our commerce, and enabling the roads at maturity to cancel their bonds, the whole country would be developed, our mineral resources laid bare, new States born, and new empires added to our glorious realm.

Bridging the Ohio River.

The question of bridging the Ohio river, between Cincinnati and Newport, Ky., has been finally disposed of in the Ohio Legislature; and has resulted in the success of the short, or three hundred feet span measure. This legislation causes great dissatisfaction with the business men of this city; in fact, with all classes of our citizens except the few who are directly interested in building a bridge, which if we are to take the testimony of our steamboat men and coal and lumber dealers, will prove a very serious obstruction to the safe navigation of the river. The Legislature passed this bill in the face of the earnest protest of the members of the Chamber of Commerce, the steamboat men, coal dealers, and all others in any way connected with the river interests; also in the face of a proposition made by some thirty of our most responsible business men to build a bridge with a span of not less than five hundred feet long.

While we favor as many bridges at this city as may be necessary for all purposes, especially where they are designed to bring us railroad connections, at the same time we join our protest to the unanimous sentiment, that the navigation of the river shall not be seriously obstructed. The narrowness of the river at this city, and the consequent great rise and fall of the water (it being over sixty feet) in the channel, producing a much stronger current than is to be found where the river is wider, makes this point of all others the most difficult and dangerous for piers.

This fact was fully appreciated when the Covington bridge was projected; and the builders of that structure wisely yielded to the opposition made to piers in the river, and built their bridge with one single, majestic span of 1,057 feet in length, thereby leaving the whole river free for navigation.

The objection to long span bridges seems to be that they cost more money, and require more skill in their construction; but these facts should not have a moment's consideration when weighed against the incalculable benefits derived from our vast river commerce.

That bridges with spans of 500 to 1,000 feet either on the suspension, or arch principle

are both practicable and safe, hardly admits of a doubt. When such men as JOHN A. ROEBLING, JAMES B. EADS, and others, eminent as engineers give their testimony in their favor, we are prepared to believe that they are both safe and practicable. But when we see such bridges in daily use, the argument is at an end.

A strong movement, combining the influence of all the cities and towns along the river, is being made to bring this matter of bridging the navigable rivers of the West before Congress, with a view of getting such legislation as will make the plan for bridges uniform, and have the navigation of the river safe and unobstructed. This movement ought to succeed.

Ohio and Mississippi Railroad.

It is understood the managers of the Ohio and Mississippi Railroad have resolved to change it from the broad to a narrow gauge, and to complete the work by the 1st of December next. They are now making arrangements to procure the necessary rolling stock, change of engines and rails. It is also understood that the Pennsylvania, Pan Handle and Little Miami Railroads are interested in the change, and furnish the ready means (about \$800,000) necessary to carry out so great an undertaking. If this had been done ten years ago, but little doubt can be entertained of the result. We venture the opinion that the owners of the O. and M. will not in future regret the change now contemplated.

We further suggest that it would be to the advantage of the Erie Railway to lay the third rail for the accommodation of narrow gauge cars on their own track, instead of borrowing the money to lay an additional rail for broad gauge cars on the track of the Michigan Southern. The Erie could then do all the narrow gauge business that might present itself. So far as the interests of owners is concerned the "broad gauge" has proved a failure, no matter what may be said of comfort of travelers; all that is admitted. But the real question is, after all, does it pay? Facts answer, No! Then why extend and perpetuate a failure? It is, of course, "none of our business," and the traveling public are not going to inquire "if it pays," but will take all the luxuries of transit, (and they are few enough at best) that they can get.

The receipts of the Western Union Railroad Company for the week ending April 30:

	1868.	1867.	Inc.	Dec.
Freight	\$12,929 27	\$3,622 73	\$14,306 54	.....
Passengers	4,058 45	4,315 99	.....	\$259 54
Express and Tel.	350 00	320 00	30 00	.....
Mail	375 00	375 00	.....	.....
Totals	\$17,716 72	\$13,633 72	\$4,338 54	\$259 54

Receipts from January 1 to April 30:

1868.....	\$175,547 12
1867.....	143,846 78
Increase.....	\$31,700 34

New Railroads near New York City.

[From Journal Franklin Institute]

Considering the general depression hanging over the country, the railroad interest is remarkably active, and indeed since railroading was first started, I do not think there ever was such activity as at the present time in this important department of internal improvement. This is certainly true of the country in and around New York, which point seems to be the *ultima thule* of almost every railway in the country, in some way, directly or indirectly. The following notes embody a synopsis of the numerous projects in all stages of development, in what may be called the vicinity of the metropolis.

The Boston, Hartford, Erie Railroad is designed to bisect the State of Connecticut as near as may be, and striking the Hudson River at Fishkill, there connect with the Newburg branch of the Erie road. There are eleven north and south roads bisected in its course; all important business connections. This road has not a very straight alignment, as will be noticed by tracing its course eastward from Fishkill, through Danbury, Waterbury, Hartford, Willimantic, Mechanicsville, Blackstone to Boston, a distance in all of some 220 miles. The surveys show the curves to be comparatively light, with a maximum grade ascending east of 60 feet per mile, while that of the ascending western grade is 66 feet. The highest summit is 763 feet, and lies in the range of hills between the Hudson and Harlem Railroads. A goodly portion of this line is already completed, and the authorization of the Massachusetts Legislature for a \$3,000,000 loan, with as much more in bonds guaranteed by the Erie Railway Company, seem to promise an early opening over the whole route. The estimates are published at \$45,000 per mile, and the projectors are sanguine of a great and increasing traffic.

The Erie and New England Railroad is designed to connect "Turner's" on the Erie Railroad, with Derby, Connecticut, in a nearly due east alignment. This road will be 60 miles long, 22 of which are in Connecticut. To be graded to accommodate both the narrow and wide gauge, it is intended to cross the Hudson at or near Peekskill, over the "Highland Suspension Bridge," which, by the way, is blocked out, as below, by Gen. Edward Serrell, of "New York Engineer Regiment" fame, whatever that was. Clear span, 1,600 feet. Total length, including approaches, 2,499 feet; elevation above high water, 155 feet; height of towers above high water, 280 feet; with several thousand miles of steel wire in the cables, which are to be in four systems, each cable being 14 inches in diameter. To carry safely 35,000 people and 60 locomotives.

The Spuyten Duyvel Railroad is intended to connect Commodore Vanderbilt's two roads, the Hudson and Harlem, and will be begun this Spring. It is an important link of about five miles, and is estimated at \$50,000 per mile.

New York Housatonic and Northern Railroad is a short line of 40 miles, and leaves the Harlem Road near White Plains, and runs northward through North Castle, Bedford, and Cross River; thence through North Salem, Ridgeberry, and striking the Housatonic line at Brookfield. The Engineer reports 70 per cent. of the route straight, the minimum curvature 1,146 feet, and the maximum grade 60 feet to the mile. The estimate for business places "milk" about 50 per cent. of the whole, so that it will be essentially an "iron tailed

cow." The whole line is under contract, and expected to be finished in a year from now.

The *Dutchess and Columbia Railroad* starts from Fishkill, on the Hudson, running through the counties from which it takes its name, to a point on the Harlem road, a total distance of 63 miles. This is a very inexpensive line to construct, and is now under contract. Two-thirds of the line is straight, the maximum grade being 53 feet, and but two unimportant bridges occur in its whole length. It occupies a good location for business, and promises to be remunerative.

The *Western Connecticut Railroad*, is a proposed route from Springfield, southwest through Granby, at which point they tap the Salisbury iron mines; thence to New Hartford and Winsted. It comes over into New York, striking the Harlem Road at Amenia, and finally joins the Dutchess and Columbia road near Washington Hollow. The grade is reported to be the best as yet surveyed between Long Island Sound and the lakes, for an east and west road, with but one instance of the grade exceeding 60 feet, and that is for about three miles on the eastern side, where it is 80 feet to the mile. The curves are remarkably easy, and the grading unusually light.

New Haven and Derby Railroad is a short line of but 10 miles, and is of course designed principally for local accommodation. It is now being graded with expectations of being finished the coming fall. There is a considerable amount of grading on the line, especially that portion passing over an ugly marsh, which it does for over a mile, and over which the grade is carried on piles.

The *New Haven, Middletown and Willimantic Road*, is located to connect New Haven and Willimantic, which latter point forms one of the links in the chain of the Boston, Hartford and Erie line. The line is 51 miles long, and is to be laid with steel rails, laid with the Smith or Hudson River joint. As the intention is to make this road part of an air-line, between New York and Boston, the plant and fixed constructions will be of the most durable character, and in which no expense will be spared to make them what they should be. A large and important bridge-crossing will be necessitated by the Connecticut River, and the original intention was to construct a suspension bridge of 900 feet span, high enough above high water as not to impede navigation. The Legislature of Connecticut has been petitioned to allow of a low grade bridge, with a draw presenting waterways of 125 feet. This has not been granted, and is hardly possible this session.

The *Midland Railroad* is intended to shorten the distance from New York to the lakes, avoiding the circuitous Erie and Central roads. As the intention is to build this line by communities, that is by towns subscribing in their corporate capacity, and not by individuals, some time was required to locate a direct line and satisfy those villages and towns that subscribed to the stock. In general direction, it bisects the region of country between the Erie and New York Central roads. The eastern terminus will probably be at Hoboken, on Mr. Stevens' property. Probably the coming six months will see the whole line under contract. The country traversed is a rolling one, but the maximum grade has been limited to 65 feet to the mile, as this line when completed will form an important route to the West, saving at least two hours over the Erie road. A connection is contemplated with the Highland Bridge, for a Boston outlet.

The *Hudson River West Shore* line occupies

the ground indicated in its name, connecting at Athens with the already built and operated Athens road, and will form an important rival to the Hudson River Road. The General Government has given the right of way through the West Point property, and the Company has bought the Northern Railroad for their southern link to Jersey City, which leaves but a moderate amount of new road to construct.

The *New Canaan Railroad* will run from Stamford, Connecticut, on the New York and New Haven Railroad, northward to the village of Canaan. This road is only eight miles long, with very light work, and the grading is now ready for the iron.

The *Lebanon Springs Railroad* was commenced in 1863, and after \$300,000 had been expended, work was discontinued. Operations were resumed some time since, and now more than half the road is ready for the iron. This road really forms an extension of the Harlem from Chatham-Four-Corners, to Bennington, Vermont, where it connects with the Rutland and Bennington Railroad. When completed, there will be an air-line between Montreal and New York, and there is every probability of this being an accomplished fact the coming summer. The distance traversed by the Lebanon Springs Road is 54 miles, in a nearly straight alignment, the longest bridge being but 200 feet.

Kinderhook and Neversville Railroad, is designed to connect Hudson, on the Hudson River Road, to Neversville on the Boston and Albany Road, a distance of 16 miles, and is expected to be built for \$500,000. Short as the line is, it traverses a fertile country and promises to be a paying investment.

The *Walkill Valley Railroad*, is a continuation of the Montgomery and Erie Railway (which leaves the Erie road at Goshen). It is a broad gauge road of 12½ miles, and will eventually be extended to Kingston, where it will connect with the Rondout and Oswego roads.

The *Goshen and Deckerton Railroad*, is the northern continuation of the above Walkill Valley road. The intention is to run from Goshen to the State line of New Jersey, some 13 miles. Here the extension of the Sussex and Branchville road will be met, which will enable coal to be sent from Pennsylvania mines into Orange County, without breaking bulk.

The *Vernon Railroad*, now being operated as a feeder to the Morris and Essex road at Waterloo, is to be extended northward to Franklin, 12 miles; thence by Hamburg and Vernon, to Warwick, when connection will be made with Warwick and Newburg branches of the Erie Railroad for other eastern ramifications, distributing Pennsylvania anthracite coal vastly cheaper than can be afforded by the present lines of traffic. It is in fact an air-line link to west and south-west from the Eastern States, and of which the Lehigh roads form part.

New York and Newark Railroad is intended for local accommodation merely between those cities, and is located in a straight line from one end to the other, being at least seven per cent. shorter than any of the existing lines. It is in the hands of the New Jersey Central Company, and strikes their ferry at Communipaw. In such a line, it has unusual obstacles to overcome, in the crossings of the Passaic and Hackensack rivers, as well as a long, deep trap-rock, cut through Bergen Hill, of the same character as that through which the Erie tunnel was pierced; which, by the way, afforded singularly fine

specimens of certain zeolite minerals. Rapid and light trains at intervals of fifteen or twenty minutes, are expected to attract a large proportion of the travel to and from Newark. The river bridges will both have "draws" in the channels, of the "Mosely arched rib pattern," slung with hog chains from standards. The balance of these bridges will consist of piling. Maximum grade allowed is 21 feet, on account of the character of the proposed plan of operating, noted above.

The *Patterson and Newark Railroad* runs up the Passaic Valley from Newark, connecting with Erie road at Patterson, and will be of considerable advantage to New Jersey manufacturers in the shipments of freights, saving the expense and trouble of shipping to New York, and those making transshipments.

The *Vineland Railway* is a projected line of 60 miles, to open up the rich trucking districts of southern Jersey to the New York markets, via the Pemberton and Hightstown Railroad. Its alignment and connections guarantee a large freight and passenger traffic.

The *Monmouth County Agricultural Railroad* will connect Freehold, New Jersey, with Keyport, on the Raritan Bay, a distance of 14 miles, and is estimated at \$15,000 per mile.

The *Rondout and Oswego Railroad* is composed of numerous links of already existing lines, together with 95 miles of new road to be built from Colliersville, on the Albany and Susquehanna road, to Rondout, on the Hudson, making a total distance between the objective points of some 221 miles. But 73 miles of the Eastern division are definitely located, and with the exception of the Catskill Mountain crossing, the grades are very favorable. On the mountain division, a tunnel of 1600 feet will be required. The estimate averages \$40,000 per mile.

In conclusion, I send a memorandum of the New Jersey Pneumatic Transportation Company.

The *New Jersey Pneumatic Transportation Company*.—Although the mode of transportation designed to be employed by this Company does not exactly belong to the same class as railroads, it nevertheless seeks to obtain the same results as locomotive roads, and differs from them in principle only in the motive power. The subject of moving valuables, light freights, parcels, and mail matter at a higher rate of speed than can be attained by any of the methods now in use, in this country, had long occupied the minds of engineers and others, when in May, 1867, the Company above mentioned was incorporated, and received a charter from the State of New Jersey. The franchise gives them the exclusive privilege of laying pneumatic pipes in that State, fixes the capital stock at \$500,000, and requires that at least ten miles of pipes shall be constructed within three years. The Company proposes to lay part of the required ten miles from Jersey City to Newark, along the line of one of the railroads now in operation between those points. The tube is to be of wood and three feet in diameter, but the details as to carriages, engines, and so forth, have not yet been decided upon. It is expected to be able to transport articles at as high a speed as one hundred and fifty miles an hour, and to have perfect control over the carriages, stopping them at pleasure and at any place. The pipes may be laid in curves, and over grades, and can be constructed for \$30,000 a mile. After the success of the enterprise is practically demonstrated, the Com-

pany proposes to lay tubes to Washington, and thus secure the carrying of mails from that city to New York, and also of money parcels and other small packages. In this connection, it may be proper to mention that a company has just been organized, styled the New York, Jersey City and Brooklyn Pneumatic Transit Company. The design is to lay pipes from Brooklyn, under the East River, through New York and under the North River to Jersey City. The tube in this case is to be six feet in diameter, with the intention of transporting passengers as well as freight. Whether the greater rapidity and saving of time by this means would induce people to prefer it to the ferries, is a matter yet to be determined. The project is now before the Legislature for a charter.

Detroit and Bay City Railroad.

REPORT OF THE BOARD OF TRADE COMMITTEE.

[From the Detroit Tribune, April 27, '68.]

A special meeting of the Board of Trade was held to-day to hear the report of the committee recently appointed in the matter of the proposed Detroit & Bay City Railroad, the President, H. J. Buckley, Esq., in the chair.

Mr. W. H. Craig, Chairman of this committee, made the following report:

The Committee appointed by your honorable body, in response to a memorial from citizens on the line of a proposed railroad from Detroit to Bay City, beg leave to report that they have had the matter under consideration, and after a careful examination of the subject, conclude the project certainly feasible and of very great importance, as well to a large class of citizens in that part of the State, as to the commercial interests of the city. The distance from Detroit to Bay City by the proposed line, *via* Utica, Romeo, Almont, Lapeer and Vassar, is about 100 miles. The average distance of this line from the roads leading to East Saginaw from Detroit is about 20 miles.

The country through which the proposed road would pass, is a fine agricultural region, under high state of cultivation, the inhabitants being possessed of large wealth, and of considerable enterprise. The large amount of agricultural products, the many populous villages, the extensive manufactories on the line of the proposed road, promise a very extensive local traffic, which, together with the through business from and to Bay City, would seem to warrant a paying patronage to the road whenever constructed. In addition to this, it is proposed to join at Bay City the Land Grant road leading directly from Bay City to Mackinaw Straits, a distance of about 150 miles, thus giving us a direct and nearly air-line road to the Straits of Mackinaw, and there connecting with the proposed road from Lake Superior and the Northern Pacific Railroad, and thus giving to the great North and Northwest the most direct and feasible route to the East and South. This route would be very many miles nearer than by any other proposed or passable route, obviating the delays and dangers of lake navigation, being perfectly feasible to cross at all time, summer or winter, a full train of cars, on a boat constructed for the purpose, with as much safety or regularity as our boats now, or at any time, cross the Detroit River. The distance from pier to pier would be only two and three-fourths miles. The ice in winter being stationary, a channel would be kept open with less trouble than a channel across Detroit River.

In view of the foregoing considerations, your Committee feel constrained to earnestly recommend this enterprise to your favorable consideration.

The citizens on the line of the road, through their memorialists, propose to prepare the road-bed for the iron. Their interests and wealth will warrant them in doing much more than that, as their property would be enhanced in value to a degree much beyond such cost.

In pursuing this matter, your committee have taken occasion to examine the railroad and commercial statistics of some of our neighboring cities, and compared them with our own. The results should awaken the interests of every business man and well-wisher of Detroit, and receive their careful consideration. We give a few of the leading articles received during the past year in each of the following cities, of wheat, flour, and corn, reduced to bushels, hogs and cattle:

	Bushels.	Cattle.	Hogs.
Detroit.....	7,523,333	69,520	167,980
Toledo.....	11,240,900	118,058	206,300
Milwaukee....	15,728,408	15,527	172,867
Chicago.....	62,316,219	373,277	1,341,656

We find on examination that the number of miles of railroad centering at each of these cities is well and truly indicated by the above receipts of agricultural products. While Detroit has about 500 miles of road over which the products of the soil find their market, Toledo has about 800, besides a lengthy canal, Milwaukee over 900, and Chicago 3,000, besides a canal across the State. As startling as these figures may appear, they seem to be justified by the facts. If, through the medium of railroads, commercial prosperity is attained, and Detroit would prosper, she must have railroads penetrating the developing regions of the country, giving them facilities to reach our market. While we have some 500 miles of road that brings the adjacent products of the soil to our market, there are over 800 miles of railroad constructed, and being constructed, and organizing, all of which is designed to carry the products of the country directly by and around Detroit to other and less desirable markets, which would, if facilities were offered, find a market here.

In view of the foregoing considerations, your committee submit the following resolution, and earnestly ask the favorable consideration of your Honorable body thereon, feeling that the commercial prosperity of Detroit is involved in the issue, and that every business man and property-holder is deeply interested:

Resolved, By the Board of Trade, business men and property-holders of the city of Detroit, that we will give such aid to the completion of the Detroit and Bay City Railroad as its requirements demand, the citizens on the line of said road and at Bay City first giving such aid as their interests demand, and their ability offers.

The report of the Committee was adopted.

The New Hudson River Railroad Depot.

A sufficient portion of the enormous structure, which, on completion, will entirely cover the ground formerly occupied by St. John's Park, is now erected to give a tolerable idea of what the whole will be when finished. At present the observer who visits the place will find himself amid a forest of iron columns, a labyrinth of stone, bricks, and desert of dirt, which form the principal features of the first-

story of that part of the building already standing upon the Laight street side of its site. The Hudson River Railroad depot is so gigantic in its proportions compared with other edifices of a like nature in this city, that it will be difficult in its description to convey to the mind of the reader an adequate idea of its size and nature, and, beyond a mere acquisition of the facts and figures, a personal visit will be far more instructive than volumes of word painting. The front of the building on Hudson street, is to be 439 feet, having the same length rearward on Varick street; the depth on Laight and Beach streets is 406 feet, these proportions give the whole an area of 173,234 square feet. The materials used in the construction of the depot are brick, granite, and iron; the walls, front, etc., are to be built of the two former, and the columns supporting the floors in the interior, and also the staircases are composed exclusively of iron. The architecture is somewhat difficult to define, though it approaches most nearly to the modern Italian. The average height is about 60 feet from the sidewalk to the roof, which does not include four towers of a slightly higher elevation, posted at the angles of the building. Commencing at the cellars on Beach and Laight streets, which are approachable by horse-ways, the first contains an open space of 56.4x348.6 feet; the area being 19,620 feet; the roof is supported by 54 iron columns, 11 feet high; total length of beams, 8,326 feet, of girders, 675 feet. There are 14 windows in the interior, and 14 widows and 11 doors facing Beach street. This cellar will be used for storing freight, there being elevators in it to lower or raise goods into the higher portions of the building at pleasure. The cellar opening on Laight street is destined for the same purposes. Its dimensions are as follows: 56.1x323 feet; area, 18,088 feet. There will be 50 iron columns supporting the roof, 10 feet in height. Total length of girders, 650 feet, of beams, 7,482 feet. There are to be twelve windows and doors opening into Laight street, and thirteen of the former in the interior. The interior of the first floor opening by multifarious ways on Hudson, Beach, Varick, and Laight streets will be lighted, as also will the cellars and the two remaining floors, by means of a very large court-yard in the center of the structure, 100x120 feet; this will commence in the basement, and by the aid of the windows on each floor looking upon it, will afford ample accommodation in this respect. There will be also eight skylights—three upon the Laight street, and three upon the Beach street side, and one at each extremity of the building; the dimensions of each will be 25x26 feet. From the front of the depot five railroad tracks will run into the interior of the building, the length of track from front to rear being 406 feet. The five openings for the cars on Hudson street will each be 34 feet in width. There will be in addition to these, five similar openings on Varick street, each 22 feet wide. Six cartways on Hudson street will be 12 feet each in width, four on Varick street 14 feet, and an additional two cartways, 16 feet each. The roof is to be supported by 431 massive iron columns, the respective height of each is 17 feet. The columns are very plain and substantial, service more than ornament being the design upon which they have been constructed. There are to be twelve iron staircases, four of which will be placed on either side of the interior of the structure, and four will lead to the towers, at the corners of the building. The idea which governs the construction of the whole depot and its appurte-

nances, is to make it and them of material as impregnable to fire as possible. The total length of iron girders on this floor is 6,828 feet; of beams, 50,120 feet. Dispersed in various directions are 14 steam elevators, eight of which communicate with the cellars below, and the whole of them to the intermediate and uppermost stories. There are to be 30 doors on Beach street, and 29 on the Lighthouse side, and also one large cartway entrance opening on the latter. All these doors and those of the car and cart entrances used on this floor, and over the whole structure, will be constructed of iron, and made either to open or close on the sliding principle. The openings on Beach and Lighthouse streets will also have folding iron shutters. Water is to be supplied on every floor and in every quarter of the structure. The second floor, used for storage, &c., is of the same dimensions as the last mentioned. It has 417 iron columns somewhat shorter than those of the floor below, their average length being only 15.9 feet. There will be 132 windows on this floor, those looking towards Hudson and Varick streets having the following dimensions: twenty-two, 5 feet each in width; six, 4.4 feet; two, 4 feet; two, 3 feet; one, 5.8 feet. The windows looking toward Beach and Lighthouse streets have the same dimensions, as also have those looking toward the court-yard. The beams over the third and last story compose the roof; the number of columns here will also be smaller than the former story, being only 328, and their average height is again less, being but 15 feet. The total length of iron-girders in this story is 6,556 feet, and of beams 38,862 feet. The windows are in number and disposition similar to those in the floor beneath. Corresponding facilities for communication both by elevators and stairways are to be provided here as in the second story. The roof slopes at a rate of $6\frac{1}{2}$ per cent. toward the court-yard, where the water is carried off by the drain pipes. The entire building contains 100,345,742 (one hundred millions, three hundred and forty-five thousand, seven hundred and forty-two) cubic feet. The entire work is to be finished on the 1st of January, 1869.

Overland Route from Alaska to St. Paul.

We had the pleasure of meeting yesterday a gentleman who had just reached the city, having been engaged since August last in making the perilous and adventurous overland trip from our new Russian American possessions.

The gentleman in question was one of the early employees of the Overland Telegraph Company, whose lines were to run up through Russian America, thence across to Russia and St. Petersburg, and has been in the employ of the company that has since carried on the work. The company having suspended operations for a time, he came down to the Southern part of "Russian America," and going up "Portland Canal," the salt water inlet which forms its Southern boundary, and, ascending Nass river (given in some maps as Simpson river), started in August last on his overland trip.

By making a portage he was able to cross by means of a line of small lakes from the head waters of the Simpson river to Fort McLeod, on the head waters of the Peace river. Passing down this branch he came into the Finley river, and soon into the Peace river proper; following this river, which flows along a beautiful valley through the Rocky Mountains, he kept on in his canoe with his Indian guide

to Duvegan House. Here he went out of the way to visit Smoky river, so called from the country being clouded with smoke from the burning peaks, the soil being a mass of earth mingled with asphaltum and petroleum.

Continuing his journey, sometimes in a canoe, sometimes on a horse, and sometimes on foot, he crossed to Lesser Slave Lake, up the stream at its northerly end, and thence by portage across to the Saskatchewan, and down it to the Carlton House. Here the water courses were left altogether, and our adventurous traveler continued his journey on horseback and on dog-sleds to Fort Garry on the Red river, thence with dog-sleds which carry the mail, to Pembina and Fort Abercrombie, and thence to this city, whence he intends to proceed to New York, where he will shortly take the steamer to California.

One not accustomed to that mode of life can hardly imagine the difficulties, privations and dangers attending such a journey through a country, a large portion of which was inhabited only by the Indians, and dependent upon them for supplies of food for the traveler and guide, which were often obtained with the greatest difficulty.

Our adventurer was for a considerable length of time in the central portion of "Russian America," or Alaska, having aided in clearing the route for the telegraph line, which, starting from the terminus of other lines which run up from California, through Oregon and British Columbia to the Southern boundary of our new possessions, thence has penetrated well up toward the interior. He is well posted as to its climate, the nature of the country and capabilities, being a shrewd observer, and having a large fund of general knowledge.

It will be seen that on some of the late maps, the Yowcaan river is represented as flowing into the Arctic Ocean, while on others this is but a branch of a large river which flows into the Atlantic near Behring's Straits. The latter is correct; this river, which is called the Kitchpich (we don't claim to give the Russian spelling) being navigable for a thousand miles through the interior of the country. The country contains plenty of timber, principally pine, hemlock and cedar, and also large quantities of coal, which the Indians burn in their lodges, it being similar to Pennsylvania coal.

The land all along down the Southern strip is well timbered, and has abundant streams, which furnish the best of water-power. The lumber trade with California and Oregon seems destined to be an important one as well as across to Asia, as it was necessary to ship immense quantities of telegraph poles from the Pacific coast to supply the Asiatic end of the line.

Some portions of the country are dotted with numerous lakes and occasional marshes; others are richly supplied with minerals, which have heretofore not been worked—for two reasons, one being the difficulty of access, and the other that all precious metals found, until the recent purchase, fell to the royal treasury.

Gardens are common, and fine vegetables are raised. Thermometrical observations have been regularly kept for four years at Fort Youcon, on the Youcon river, about midway between the Pacific and Arctic Oceans, showing a temperature about the same as Quebec and Montreal. The cod fisheries near the Islands along the coast are unsurpassed, while the finest furs are wonderfully plenty and cheap, being bought for a trifle from the Indians in the interior.

Many and conflicting statements have al-

ready been published in regard to Alaska, which makes the description of one whose acquaintance with the country is the result of recent and personal observations, of special interest. We give his statements as they were furnished to us, withholding his name at his request, his position, and the business connected with his present trip rendering this desirable.—*St. Paul Press.*

Toledo, Wabash & Western Railroad.

The Toledo, Wabash & Western Road publishes the following statement of the gross income for the fiscal year ending Dec. 31, 1867, together with the operating expenditures for the same period, viz:

INCOME.	
Passenger Transportation.....	\$1,213,525 43
Freight Transportation.....	2,364,225 40
Mail Transportation.....	52,000 00
Express Transportation.....	148,385 52
Miscel. Sources.....	31,217 23
	<hr/> \$3,809,353 58
EXPENDITURES.	
Renewal of Iron and Superstructure.....	\$364,912 93
Maintenance of Roadway and Structures.....	633,491 20
Maintenance of Cars, Eng's, &c.	449,469 34
General Transportation Expenses	1,439,008 85
	<hr/> \$2,786,882 22

Leaving a Net Income of.....\$1,022,471 26

The earnings were \$91,967 36 more than those of the preceding year, and the expenditures were \$24,304 18 less, showing a comparative net increase of \$116,271 54.

The earnings, expenses, and rate of dividend of the Pennsylvania Railroad Company, upon whose passenger and freight charges there is a restriction, except that imposed by competition with other lines, were as follows in each of the last three years:

	1865.	1866.	1867.
Earnings.....	\$17,459,169	\$16,583,883	\$16,340,156
Expenses.....	13,270,058	12,790,909	12,080,300
Net earnings....	\$4,189,111	\$3,792,974	\$4,259,856

Percentage of expenses.....	76	77.9	74
Rates of dividend.....	10	9	6

In 1864 the earnings were \$14,759,058, and the expenses \$10,693,944, leaving the net earnings \$4,065,114. The percentage of expenses was 72.6, and the rate of dividend 10 per cent.

BUSINESS OF THE GREAT CITIES—CORRECT FIGURES.—The Special Commissioner of Revenue, Mr. Wells, was very wide of the mark in giving the business of leading cities in his recent report to Congress. This will be seen by the following table, which is as revised and corrected by Mr. Wells for his published report. The table shows the aggregate amount of business transacted in the leading commercial

cities of the country, by wholesale and retail dealers in merchandise and liquors, and by auctioneers and merchandise brokers, during the fiscal year ending June 30, 1867, as deducted from the returns of taxes on sales and licenses, the tax being one mill on the dollar:

	Correct am't.	As originally published.
New York.....	\$3,313,678,058	\$1,976,565,000
Boston.....	928,173,000	646,407,000
Philadelphia.....	662,097,000	616,698,000
New Orleans.....	526,795,090	367,591,000
Chicago.....	342,182,000	147,245,000
Baltimore.....	324,966,900	307,076,000
Cincinnati.....	213,253,000	180,753,006
St. Louis.....	213,034,000	234,891,000
San Francisco...	151,367,000	161,225,000
Louisville.....	116,216,000	72,949,000
Milwaukee.....	110,675,000	58,195,000
Providence.....	91,876,000	78,904,000
Buffalo.....	81,350,000	52,733,000
Pittsburg.....	80,939,000	76,240,000
Mobile.....	77,383,000	54,291,060
Brooklyn.....	69,676,000	61,448,000
Detroit.....	62,757,000	50,471,000
Cleveland.....	55,302,000	56,117,000
Charleston.....	46,769,000	36,674,000
Newark.....	36,428,009	34,396,000

The sales of the principal commercial States of the Union are as follows:

1. New York	\$4,116,981,120
1. Massachusetts.....	1,173,797,647
3. Pennsylvania.....	1,129,025,276
4. Illinois.....	671,836,357
5. Ohio.....	608,941,164
6. Louisiana.....	550,865,409

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

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Fare to Washington City same as to Baltimore.

O. L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

Dec. '67.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2 3/4 inches in width, and under. For Tickets over 2 3/4 inches in width.

SIZE NO. OF FORMS.	PRICES.	SIZE NO. OF FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 256	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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167 Walnut St., Cincinnati, O

WRIGHTSON & CO.,

Railroad Printers

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SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards,

STRETCHERS,

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COUPON AND LOCAL TICKETS,

Bills Lading,

Way Bills,

Blank Books,

AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as any establishment in the country.

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PUBLIC OFFICES, Etc., Etc.

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J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis, Aug. 2, 1885.]

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It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

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wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

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WITHOUT CHANGE OF
COACHES!

—VIA—

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PASSENGERS leaving CINCINNATI by the A. & G.W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

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Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

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A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

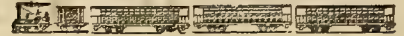
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1885, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from 7 1/2 East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:30 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

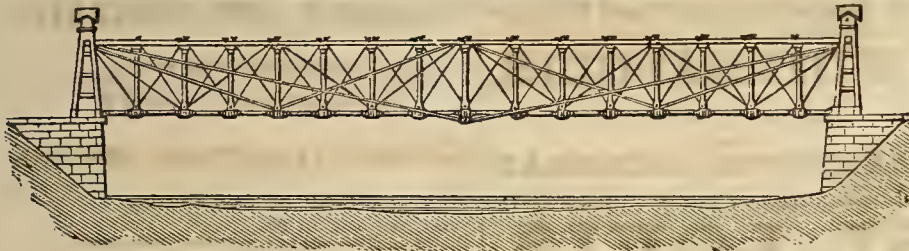
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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ENGINEERS,

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Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,
Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

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W. P. SMITH, Master Transportation, Baltimore
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Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
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JANUARY 5th, 1868.

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Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
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Best Route to St. Louis and Chicago

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Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am
No change of cars between Cincinnati, St. Louis and Chicago.		

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

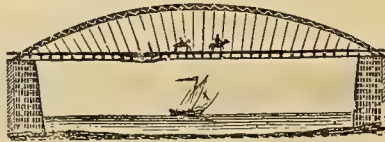
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BRIDGES,

AND

CORRUGATED IRON ROOFS

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FREEDOM IRON COMPANY,

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And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works
June 9

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LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

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Rebuild and Repair Locomotives.

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JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

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Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 40 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,
Gas Works Castings, etc., etc.

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THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

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FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted). 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore and Washington at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, MA

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
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SUBSCRIPTIONS—\$3 Per Annum, in Advance.

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One square, single insertion..... \$ 1.00
" " per month..... 3.00
" " six months..... 12.00
" " per annum..... 20.00
" column, single insertion..... 5.00
" " per month..... 10.00
" " six months..... 40.00
" " per annum..... 80.00
" page, single insertion..... 75.00
" " per month..... 25.00
" " six months..... 110.00
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WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.		
	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.
LITTLE MIAMI.		
Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.
CLEVELAND, COLUMBUS & CINCINNATI.		
Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.
MARIETTA AND CINCINNATI.		
Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.
CINCINNATI, HAMILTON AND DAYTON.		
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.
CINCINNATI, SANDUSKY & CLEVELAND.		
Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.
CINCINNATI AND INDIANAPOLIS JUNCTION.		
Connersville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.
OHIO AND MISSISSIPPI.		
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.
CINCINNATI AND ZANESVILLE.		
Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.
KENTUCKY CENTRAL.		
Express.....	6:10 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.
PAN HANDLE ROUTE.		
Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

National Conventions.

THEIR DUTIES AND RIGHTS.

Once in every four years the great National Political Parties of our country assemble in convention for the ostensible purpose of nominating standard bearers and enunciating the doctrines, or platforms, on which they propose to conduct the canvass. With the ordinary party questions of the day, as railroad journalists, we have nothing to do; but as advocates of the material interests and progress of the country, we claim the right to suggest to any or all parties, such matters as we deem for the general good.

The Congress of the United States are the immediate and responsible representatives of the People; but the delegates to the National Conventions are also representatives of the People, and being more recently selected, are supposed to express the views and wants of the Nation. Hence, there is no impropriety when convened in National Convention, but rather it is their right and bounden duty to express their views as to the duty of Congress to so legislate as to meet the necessities of our National finances by encouraging in every practicable method the development of our inexhaustible agricultural and mineral resources, and thus promote our national industry and give employment to every class of labor and business.

As a most efficient means of thus stimulating labor and increasing the *productive capacity* of the country, and by that means restore specie payments and make our public obligations equal to the currency of the world—gold—and also, as a measure of positive economy in the management of our military affairs on the Western plains and frontier, it is the duty of the People's Conventions to request Congress to enact such legislation as will secure the construction of the great railroads between the Atlantic and Pacific States.

This is not a new plank, but has occupied a prominent position in the platforms of all parties for the past twelve years, and should any party fail to embody so important a measure for the development of the country and the material prosperity of the people, in their fundamental doctrines, they will fail in meeting the interests and expectations of the masses.

There is no excuse (in this country of exhaustless and unequalled latent wealth, if only judiciously stimulated by wise legislation) to not recuperate every interest, and furnish profitable employment to every department of productive industry. That party which exercises the most wisdom and statesmanship in advocating measures that secure the prosperity of the People and progress of the country, will also secure their endorsement and approval.

Cincinnati Chamber of Commerce.

This body of the active business men of Cincinnati, after full investigation, with a unanimity that is not common in large assemblies, adopted the report of their special Committee, endorsing the necessity for the construction of the three great railroads to the Pacific, and thereby develop our whole country. The Chamber memorialize Congress to grant equal aid to the Kansas or Southern route, as it does to others. This is but just; and, indeed, it is the only one by which any portion of the Pacific trade could ever reach Cincinnati. The Report of the Committee is a very able paper, and will be read with great interest by every lover of our country's progress. It was unanimously adopted.

Report of the Committee

TO WHOM WAS REFERRED THE SUBJECT OF THE KANSAS PACIFIC R. R.

To the Gentlemen of the Cincinnati Chamber of Commerce:

Your Committee respectfully report, That they are aware that the subject of Congressional aid in the construction of railroads is not a new one.

The experience of the past has demonstrated the wisdom of the policy by the rapid development of the country through which they are constructed, and the almost magical transformation of vast unoccupied territory into fruitful fields and flourishing cities and villages, the latter equalling in beauty and elegance those of older States, while the bulk of our exports of breadstuffs is but the surplus of the broad acres thus brought to our doors by roads constructed through the wisdom and munificence of Congress.

Our country is not the only one in which such aid has been profitably extended to railroad enterprises.

For military purposes alone, Russia has deemed it economy to construct an immense system of railways; while Great Britain, with the double purpose of facilitating military operations, and securing a permanent supply of cotton, rendered precarious by the American rebellion, has not hesitated to guarantee a fixed interest on four hundred and fifty million dollars of capital invested in railroads through the territory of her East India possessions, on a large portion of which the Government has already been released by the earnings of the roads exceeding the guaranteed interest.

Our own country is peculiarly situated; our Eastern and Western settlements are widely separated by a vast territory, almost as impassable by ordinary locomotion; and attended with as many dangers, as the Atlantic ocean itself; and while we believe that private capital should always construct works of internal improvement through private property, as is the case in the settled portion of the country;

yet where the entire route is through the Public Domain, devoid of water communication for over 1,500 miles, we conceive it but equitable that the estate made valuable by such improvement should bear a just proportion of the cost, especially if the aid afforded be in the form of a loan of credit, well secured and returnable with interest.

It is not only in rendering available for purposes of civilization this vast unoccupied territory, that railroads to the Pacific will be advantageous; but also in developing the inexhaustible supply of the precious metals, well known to exist on the line of the projected routes (especially the Southern) now so much needed to restore specie payments, and cancel our Public Debt, but also in the opinion of the ablest minds of our country and the world to secure the control of the transit and commerce of the Orient and the Islands of the Pacific; thus making us the arbiters of the trade of the world.

The counsel of WASHINGTON was, that "in peace, we should prepare for war;" as a military problem, celerity of movement and rapidity of blows are more efficient than ponderous weapons and countless numbers. The importance of this proposition was fully demonstrated in the six week's war between Prussia and Austria, as well as by our own experience during the late rebellion. Hence, we deem the construction of railroads to the Pacific a matter of the first importance as a "military necessity."

This is, however, not all. Public economy also demands their construction. For this we have the highest military authority. Gen. SHERMAN so testified, before the Congressional Committee; and Gen. SHERIDAN, in a letter to Gen. GRANT, under date of May 2d, 1868, says: "I know that, pecuniarily, it would be to the advantage of the Government to help this road." In the same letter he says: "in addition, it almost substantially ends our Indian troubles, by the moral effect which it exercises over the Indians, and the facility which it gives the military arm in controlling them."

The economy of the construction of this road in the management of our military affairs, is perhaps more forcibly illustrated by the following extract from the letter of JOHN D. PERRY, Esq., President of the road. He says:

"The saving in rail over wagon transportation, is shown by the following statement of the aggregate tonnage carried for the Government, between November 1, 1866, and October 31, 1867:

Total number of tons.....	20,343
Average distance carried by rail	104 miles
Cost of freight on above number of tons.....	\$329,182 57

The average cost, to the Government, by wagon transportation from 1865 to 1867, inclusive, was \$1.57 per 100 pounds per 100

miles. At this rate, the 20,343 tons carried by rail between the dates above specified,

Would have amounted to.....\$664,321 00
Deduct cost of rail transportation 329,182 57

\$335,138 43

This shows a saving to the Government of more than the whole amount paid the company for freight in the period named."

There are three great routes projected:

First. The Central, or Union Pacific, from Omaha, via Salt Lake to San Francisco (and for which the Government has granted ample subsidies to secure its completion.

Second. The Northern, extending from Lake Superior to Pugets Sound, which would develop our Northern frontier, supply the wants of Minnesota, Dakota, Idaho, Montana, and Washington, and bring us into close proximity to our newly acquired territory of Alaska.

Third. The great Southern, or Kansas, route, passing nearly the entire distance through a rich and fertile country, that needs only to be made accessible to render it not only self-sustaining, but capable of exporting (in addition to supplying the demands of an immense mining population) a large surplus of agricultural products.

The Kansas route follows the isothermal lines of a temperate latitude. As it approaches the mountain passes of the great ranges that traverse the entire length of the continent, it deflects to the South; this, in connection with the lower altitude of the passes, secures to this road the advantage of uninterrupted communication through all seasons of the year—free, alike, from the malaria and fevers of the tropics, and the dangers of the deep snows and avalanches of other less favored routes.

That portion of this route laying between the Rio Grande and the Colorado, is proverbially rich in its mineral resources; and we think we hazard nothing in saying that more mineral wealth will be developed by the construction of this road, and returned to the older States for goods and merchandise in a few years from the date of its construction, than will doubly pay its cost, and furnish the real basis with which to pay the National Debt.

To make more valuable the subsidy already furnished by the Government to this road, extending and now finished 412 miles west of Kansas City, and 695 west from St. Louis, and without a definite terminal point, wisdom and economy would indicate an extension of the project to the Pacific.

In the construction of this last named road, Cincinnati, as well as the cities directly west and south of us, as also the cities of the southeast seaboard, are more especially and directly interested; all of whom we earnestly urge to join with us in immediate action to secure its favorable consideration with Congress.

While we feel a just pride and interest in whatever develops and advances any portion of our common country, we should be recreant to our own interests were we to ignore and neglect to commend that which had a more especial bearing on the interests of Cincinnati, and is calculated to place her on the highway, and in the path of the commerce of the world.

We beg to offer the following resolutions, and recommend the adoption of the accompanying memorial to Congress:

Resolved, As the sense of the Chamber of Commerce, of Cincinnati, Ohio,

That we approve and endorse the equity and wisdom of Government aid in the construction of railroads through the Public Domain.

That, while we do not disparage, but fully recognize, the importance of other routes, we deem it not only just and wise, but economical, to grant equal aid in the construction of this one, so that all sections of our country may be alike developed, and share in the advantages of increased trade and the facilities of commerce.

That in view of the vast traffic which must, ere long, flow across this continent from the Pacific to the Atlantic, any one road would be burthened to plethora; while the competition for way traffic on roads from three to five hundred miles apart, can never conflict.

That feelings of humanity for the Indian, economy in the management of our military affairs, as well as the duty we owe to our citizens, to protect them in all lawful callings on our own soil, alike demand their construction.

That in the matter of finances, it is economy to improve our estate and render it productive.

In commending the construction of railroads to the Pacific, we recognize the development of our agricultural and mineral resources, the peaceful strengthening of our commerce, security to our extended territory, and as furnishing an additional pledge by increasing the basis of taxation, for the payment of our National Debt.

We therefore respectfully recommend the adoption of the following memorial.

THE MEMORIAL.

Of the Chamber of Commerce of the City of Cincinnati to the Congress of the United States, respectfully represents:

That, whereas, the Kansas Pacific Railway has approached within a few miles of the point to which the aid granted by the Government under existing laws extends. And whereas, the speedy completion of this road through New Mexico, Arizona and California to the Pacific coast is demanded by the military and commercial requirements of the nation.

And whereas, a work of such magnitude can not be prosecuted by private means alone, with the rapidity necessary to enable the present generation to enjoy its benefits, but needs the direct co operation and aid of the general Government. Therefore,

We consider the extension of the Kansas Pacific Railway by the Southern route to San

Francisco, a matter of national concern and importance; and the investment by the Government of its credit, to an amount sufficient to ensure its completion at the earliest possible day, a measure of *retrenchment*, especially needed in the present condition of the national finances.

That it will at once greatly cheapen the heavy cost of transportation now incurred in supplying the six regiments which are stationed on this route, between the end of the finished track in Kansas and the Pacific coast; and by inducing the rapid settlement of the country, will soon remove the necessity of maintaining a large portion of the present extensive military garrisons and gradually lead to the peaceful and humane solution of the Indian question, which the nation has so much at heart.

That it will traverse a region of country of great mineral and agricultural wealth, and well supplied with coal and timber, in New Mexico, Arizona and Southern California, lying six or seven degrees south of the line of the Union Pacific Railroad from Omaha west, and entirely undeveloped thereby, and by thus adding greatly to the productive power of the nation will enable the burthen of taxation to be materially diminished.

That it will afford an avenue of approach to the rich mines and semi-tropical productions of Northern and Central Mexico, ensuring the trade of these districts to the United States, and preventing the possibility of future complications from foreign aggression in that disturbed country.

That the result of the careful instrumental and geological surveys just completed by the Company, demonstrate not only the practicability of this route, but the fact that it is especially recommended by the low altitude of its mountain passes, the abundance of coal and timber and of precious ores, the extent of its pastoral and cereal resources, and especially by the mildness of its climate ensuring certain and economical operation of the road throughout the year.

That by providing a single trunk line across all the mountains and difficult portions of this route to the Pacific, it furnishes the best means of connection at the base of the Rocky Mountains, east of the Rio Grande with the Railroads now pushing out across the great plains from Arkansas and Texas, thereby placing Memphis and New Orleans as near as St. Louis to San Francisco and San Diego, and affording to all of our Southern States the advantages of communication with the Pacific without the expense or delay of a separate trunk line.

Therefore, as a measure of sound financial policy, since only a loan of the public credit is needed to secure these advantages—and since the past history of the Company has shown that the annual saving to the Government in the transportation of troops, mails

and supplies, alone, largely exceeds the sum of the interest upon the aid required to build the road and the annual sinking fund necessary to extinguish the bonds at maturity—we respectfully urge upon Congress, and request our Senators and Representatives to assist by their votes and active efforts in securing the passage of a bill at the present session to grant the aid required from the Government for the immediate extension of this road from its present terminus to the Pacific coast.

ROBERT HOSEA, <i>Chairman</i> ,	} <i>Committee.</i>
MATTHEW ADDY,	
ROBERT MITCHELL,	
ADOLPH WOOD,	
SAMUEL DAVIS, <i>Jr.</i>	

Minnesota and its Railroads.

The far off State of Minnesota claims to be a great State for a young one. Did we say—"far off?" Certainly it would have been far off, and very far off in the days of our boyhood; for then there were no railroads; and then there were no States beyond the Mississippi, and then there were but few people in Illinois, and scarcely any in Michigan. But now it is not correct to say, "far off," for railroads take us to St. Paul in a few hours and the once wilderness of the West is teeming with population. But Minnesota is a very new State, and not very populous, but is striving to get into the first rank, and it would not be surprising to find Minnesota a few years hence, one of the eight or ten most populous States of the American Union. Then again, it is in Minnesota that the Northern Pacific Railroad will terminate, and make its connection with the great Lakes. For this reason we like to look at Minnesota, and see what it is doing. What is Minnesota and its railroads? It derives its name from two Indian words, "*Minnie*" and "*Sotah*," signifying water, referring to the numerous lakes and streams, whose purity reflects the sky. Its area is about 84,000 square miles, or about 54,000,000 acres, making it one of the largest States East of the Rocky Mountains. It is in high Northern latitude, its Northern limits being 40° N. Lat., the Northern Boundary of the United States. It is in some respects, fortunately and remarkably situated; for it is midway between the Atlantic and the Pacific Oceans, and nearly midway between Hudson's Bay and the Gulf of Mexico.

In reference to this fact, the Hon. Wm. H. Seward, in a speech delivered at St. Paul in 1860, says, "Here spring up almost side by side, so that they may kiss each other, the two great rivers of the continent," the Mississippi and the St. Lawrence, rising almost within a stone's throw of each other, and running in opposite directions,—the one half way to Europe, the other bearing our commerce to the Gulf of Mexico, gathering the products of the cotton plantations of the South and bringing them to the vast water powers of the Upper Mississippi.

This natural situation will have great advantages for the Northern Pacific Railroad, and probably in the end make it the most profitable of the several Pacific Roads to be made.

In 1865, the population of Minnesota was 250,000, and it is supposed that nearly 150,000 have arrived there since, so that on the 1st of July, 1868, the people of Minnesota may be counted at 400,000.

Minnesota is remarkably well watered and very uniform in climate, although cold. For the small grains it is, perhaps, as well adapted as any part of our country. When we look at the waters of this new State, we are surprised by their number and magnitude. In the North-east is Lake Superior, which is in itself, a vast sea. In the North, Red River of the North. In the South-east, the Mississippi; and in the interior, the Minnesota, the St. Croix, and the Canon, all large streams.

One of the present great elements of business in Minnesota is the lumber interest. We take from a statistical document the following account of it:

The vast pine forests cover the Northern part of the State, extending from Lake Superior to the outlet of Red Lake, and extending as far South as latitude 46° in Anoka county. The principal pineries where lumber is obtained are situated upon the headwaters of the Upper Mississippi, and those of the St. Croix, Kettle, Snake, Rum, Crow Wing and Otter Tail rivers. The logs are cut in the dead of winter, and when the ground is covered with snow are conveyed to the streams, down which they are floated in the spring when the snow and ice melt. These pine forests being almost inexhaustible, constitute a vast source of wealth for generations to come. They give employment to a large number of lumbermen, who constitute a hardy class of industry as distinct as that of railroad or steamboatmen.

In 1861 the exports of lumber from this State were about 30,000,000 feet. This trade is constantly increasing; in 1865 upwards of 83,000,000 feet were manufactured at St. Anthony and St. Croix Falls, besides 15,500,000 shingles, and 16,500,000 laths. The products of 111,000,000 logs of an aggregate value of \$1,662,810, were exported. In 1866, the amount of logs and lumber cut and manufactured was about 175,000,000 feet; in 1867, about 276,000,000 feet.

In connection with the commerce of this region, we must notice the steamboat business which is thus described. We must recollect that a few years ago there were no steamboats running here, and that we are not giving an account of an old settled country, but of a very new one:

The steamboat business of Minnesota is as yet confined to the Mississippi, the Minnesota and the St. Croix rivers. On the Mississippi, the business is principally done by the "North Western Union Packet Company," although a large number of independent or "wild" boats, as they are called, engage in our trade.

The North Western Union Packet Company, being a union of the "Davidson Line" and the Minnesota Packet Company, has within a few years grown to a large and influ-

entail company, starting, it is said, with a "Line" consisting of one boat, they now own eleven first-class packets, nineteen stern wheel steamers, together with one hundred and thirty-one barges, and employ over 2,000 men. The capital stock of this company is \$1,500,000. Their boats ply between Dubuque and St. Paul, and LaCrosse and St. Paul; two boats leaving St. Paul daily, connecting with the Illinois Central R. R. at Dubuque, Milwaukee R. R. at Prairie du Chien and LaCrosse. This line also has boats on the St. Croix, one boat daily at Taylor's Falls, and on the Minnesota a daily packet besides several freighters.

The Northern Line boats ply between St. Louis and St. Paul, and consists of nine first-class side-wheel packets, eight stern wheel steamers, and sixty barges,—a boat leaving St. Louis and St. Paul daily. I am unable to give statements of the boats and arrangements of the Savannah Packet Company, plying between Savannah and St. Paul.

The Collector of Customs at the Port of St. Paul, gives the aggregate tonnage of that port for 1867, at 13,308,22 tons, which falls far short of the actual amount, because of a large number of the boats being registered at Dubuque and Galena. Were the boats and barges plying to the Port of St. Paul all registered there, the tonnage would double the amount given above.

We come now to the railroad system, which has progressed in Minnesota, for a new State, very rapidly. The principal railroads are aided largely by the Government. In 1857, Congress made a land grant of four and a half millions to Minnesota for railroad purposes. In 1864, an additional grant was made. These acts gave ten sections 6,400 acres of land for each mile of road; to be built under the law, for the great projected lines. The principal lines are:

1. *First Division of the St. Paul and Pacific Railroad.*—This goes from St. Paul via St. Anthony and Minneapolis, to a point on the Western boundary of the State, at or near Big Stone Lake. The main line is 200 miles in length, of which 25 miles are in operation, 15 graded, and the company expect to complete in all 70 miles this year. Connected with this line is a bridge over the Mississippi, above the Falls of St. Anthony. This road has a branch from St. Anthony to Watab, of which 65 miles, to Sauk Rapids, is in operation.

2. *A Line from Watab (connecting with the former) via Crow Wing to Pembina, on the great Red River of the North, 320 miles in length*—This line is located, but no part of it constructed.

3. *The Minnesota Valley Railroad.*—This goes up the Minnesota Valley from St. Paul to the Iowa State line, and thence to Sioux City, which is the Northern terminus (by act of Congress) of a branch of the Union Pacific Railroad. The whole distance to Sioux City is 240 miles, of which 62 miles are in operation, and 90 will be at the end of the year.

4. *The Milwaukee and St. Paul Railroad.*—This line is nearly North and South—is 110 miles long, and all of it in operation.

5. *St. Paul and Superior Railroad.*—This

line goes from St. Paul to the head of Lake Superior, which is 150 miles. It has 30 miles graded, and a large land grant. It will be pushed to completion.

6. *The Hastings and Dakota Railroad.*—Considerable grading is done on this road, and 22 miles will be finished this year. It is East and West across the State.

7. *The Winona and St. Peters Railroad.*—This line is East and West across the entire State, and will be 250 miles. It is completed 105 miles, and will be finished to the Minnesota river, 140 miles, by the close of 1868.

8. *The Southern Minnesota Railroad.*—This line is from La Cresent up the Valley of Root river to the Western boundary of the State. It is finished 30 miles, and will be 250 miles in length.

9. *The Chicago and St. Paul Railroad.*—This is to be constructed along the Mississippi river to the Southern boundary of the State, and has been endowed by the State with 10,000 acres of land per mile. A large force is engaged in construction, and the company have determined to build and equip the road with the least possible delay.

10. *The Stillwater and St. Paul Railroad.*—This is 18 miles in length, and is intended to bring the lumber trade of the St. Croix Valley to St. Paul.

We close this account of Minnesota Railroads with the following paragraph from a pamphlet on Minnesota:

It is impossible to overestimate the importance of this system of railroads to the present and future population of the State. The construction of these lines now in active progress gives employment to vast numbers of men, and gives assurance that every part of the State in the near future will enjoy the benefits of a cheap and speedy transportation of passengers and products to and fro. And when completed, the system will give to the whole State every advantage, so far as markets are concerned, which now belongs to the favored State of Illinois.

These lines, covering over 2,000 miles wholly within the limits of the State, are rapidly opening up some of the best lands in the world, by bringing them within easy reach of good markets. The different railroad companies are pursuing a liberal policy towards immigrants, offering them inducements as to price and time of payments, seeing that their own prosperity is identical with that of the State. St. Paul may be said to form the heart or centre of this net-work of the "arteries of trade."

The great facility which Minnesota possesses of sending her produce to market is not the least of her many advantages. The richest lands and the finest climate in the world are useless in a commercial point of view if not connected with the great trading emporiums by wide and accessible channels of trade. The broad bosom of the Mississippi sweeps our commerce to the Gulf of Mexico, and brings back the cotton of the South to be manufactured by our numberless water-powers; our railroads open another channel to the Atlantic coast; while by way of lake navigation, via Lake Superior and the great Pacific Railroad, connecting us with both the Atlantic and Pacific, affords ample and unequalled commercial facilities.

Bridging the Ohio River.

That there is, no doubt, honestly a difference of opinion relative to the importance of plenty of sea room for the navigation of our Western Rivers, we cannot deny; but we think that any one who is not pecuniarily interested in the stock of the Bridge, or in real estate to be increased in value by its construction at the smallest possible outlay, if they would devote a short time to watching the operations of passing fleets of tows, that they would be most effectually convinced. The question of bridge or no bridge, is not the one at issue; all favor the construction of bridges wherever the wants of traffic demand their erection. The ordinary traffic between the city of Newport and Cincinnati, alone, is sufficient to justify the construction of a good and substantial structure; the interest in real estate in Newport and vicinity held by the heirs of Gen. JAMES TAYLOR, is sufficient to warrant them in putting up a first-class bridge and reducing the tolls to the minimum. Indeed, the increased value that would be imparted to their property would be equal to the cost of half a dozen bridges. Hence, the argument of necessity for economy in construction is a poor one, when the difference in cost would have to be paid annually, by a tax levied on consumers in the increased cost of coal and other merchandise, on account of the increased cost and risk of transportation. Every man who consumes one hundred bushels of coal a year would be taxed one dollar, and so on in proportion to the amount consumed. This tax is not to be levied on a single city, but extends the entire length of the river. The modesty of this request, however, may not be fully appreciated at the present time, but when consumers of coal pay their bills they will have a more realizing sense of the fact.

We are glad to see that other cities besides Cincinnati are taking cognizance of this unnecessary outrage on commerce and the interest of the whole people; we publish elsewhere the proceedings of the Board of Trade of Pittsburg, and we trust that every other city on the banks of the Ohio will take similar action, and urge upon their Representatives in Congress the enactment of a general law that will at once be a bar to all such obstacles to commerce, and protect the rights inherent to the whole people to navigate these great national highways, while at the same time it will be a perpetual charter for any structure that the great and growing ordinary or railroad traffic of the country may demand.

It has long since been conceded that States have not the control of these great rivers. By universal consent, the jurisdiction of them has been accorded to the General Government. The General Government spends the money of the Nation in their improvement and the removal of obstructions, yet each State bordering on a stream think they have equal rights to bridge them.

It should also be borne in mind that what may be no obstacle in a tidal stream, where the water ebbs and flows twice in twenty-four hours, may be a very serious matter in a river like the Ohio, where the current like that of the Tombigbee "does not run up," and the variations between low and high water is over sixty feet.

The Ohio River.

OPPOSITION TO BRIDGE OBSTRUCTIONS—MEETING OF MERCHANTS, MANUFACTURERS AND RIVERMEN.

[From the Pittsburgh Dispatch, May 12.]

A meeting of merchants, steamboatmen and coal dealers, was held Monday afternoon at Wilkin's Hall, pursuant to a call issued by Mayor Blackmore, at the request of a large number of citizens. The object of the meeting was to protest against short span bridges on the Ohio river, and to appeal to Congress for the passage of a law preventing the same, and any other obstruction to the river named.

The attendance was quite large and the greatest interest was manifested in the proceedings.

On motion of Mr. R. C. Gray, Mayor Blackmore was called to the chair, and Messrs. Joseph Walton and N. J. Bigley were made Vice Presidents, and the reporters of the press Secretaries.

The Chairman briefly stated the object of the meeting, when, on motion of J. F. Dravo, a committee, consisting of Messrs. Dravo, Roberts and Gray, were appointed to prepare resolutions expressive of the sense of the meeting.

W. Milnor Roberts then spoke at length against the erection of a bridge at Cincinnati with a 300 foot span as detrimental to the navigation of the Ohio. The address was loudly applauded.

Mr. Roberts, by permission, then read a communication from the Pittsburgh Board of Underwriters, containing the resolutions passed at a meeting of the Board. The communication is as follows:

"OFFICE OF BOARD OF MARINE UNDERWRITERS, PITTSBURG, May 11, 1868.

"At a meeting of this Board, held this day, it was unanimously

"Resolved, That it is the deliberate opinion of the Pittsburgh Board of Underwriters that bridges built across the Ohio river, with piers in the river only 300 feet apart, would prove a serious and dangerous obstruction to the navigation of the river; and that the Underwriters, in justice to their stockholders, will be compelled to charge increased rates for the insurance of property passing such piers.

"Resolved, That it is the judgment of the members of this Board, that where bridges are built over the Ohio river, that in order to leave the navigation reasonably safe, there should be a main span over the channel not less than 500 feet between piers.

"W. P. JONES, President.

"ROBERT FINNEY, Vice President."

RESOLUTIONS.

Captain Gray, from the Committee on Resolutions, read the following which were unanimously adopted:

Resolved, That we approve of the general views expressed by the citizens of Cincinnati in protesting against the erection, at that place, of a bridge across the Ohio river, with bridge can possibly improve the navigation.

piers only three hundred feet apart, which must constitute a permanent injury to the navigation of the Ohio river, in which millions of capital belonging to the city of Pittsburgh and vicinity are interested.

Resolved, That there is no necessity for the construction of bridges at this day across the Ohio river with a main span between piers of less than five hundred feet. A railroad bridge has been in successful operation, for a number of years, on the Niagara river, having a clear span of over eight hundred feet.

Resolved, That the construction of railroad bridges over one of the most important national thoroughfares in the Union is unjustifiable, unless they are arranged with proper and reasonable care for the immense river interests dependent on its safe navigation.

Resolved, That experience at the bridge built a few years ago at Steubenville, with only a three hundred foot span, has proved that it is a serious obstruction to the safe navigation of the river, having annually caused the loss of many thousands of dollars, by sinking coal boats, &c., and breaking up fleets of boats.

Resolved, That as the General Government is now engaged in removing obstructions from the Ohio river, in order to render its navigation more perfect, it would be unpardonable and inconsistent for Congress to permit the introduction of more material obstructions than any they are now engaged in removing.

Resolved, That we respectfully but earnestly ask the immediate attention of Congress to this important subject, requesting them to interpose the power of the General Government to prevent the Ohio river from being unnecessarily obstructed, by requiring all bridges hereafter to be built over it to have not less than five hundred feet clear waterway.

Resolved, That the additional cost of constructing bridges of five hundred feet instead of a three hundred foot main span, bears no reasonable proportion to the immense protection which such wider span affords to the river interests and to the general interests of the country.

Resolved, That not merely the citizens of Pittsburgh, but those of every city and shipping place on the Ohio, the Mississippi, the Missouri, and their numerous great tributaries, are deeply interested in protecting the navigation of each and every one of their rivers against unnecessary obstructions.

Resolved, That we recommend that a Committee of — be appointed to represent the citizens of Pittsburgh to meet with their fellow citizens of other cities and towns in the convention called to be held at Cincinnati.

Resolved, That our members from this district, Hon. J. K. Moorhead and Hon. Thomas Williams, be requested to use their best endeavors to obtain such legislation in Congress as will secure proper protection to the navigation of the Ohio river, by preventing the erection of narrow span bridges.

MEMORIAL TO CONGRESS.

Mr. Roberts, by request, read the following memorial of merchants, manufacturers and other business men of the city of Pittsburgh:

PITTSBURG, PA., May 11, 1868.

To the Senate and House of Representatives of the Congress of the United States:

Your memorialists have learned that a number of bridges are proposed to be built over the Ohio river at different points. We do not object to the building of bridges over this important navigable thoroughfare, though no Congress having assumed this stream to be

what it is, a national highway, and having undertaken with public funds (to which all our citizens contribute) to improve it, and to remove its obstructions, we merely ask that your honorable body will exercise your power in preventing the putting in of unnecessary obstructions. We claim that the erection of piers in the river, with spaces of not more than three hundred feet between them, is an unnecessary obstruction, and pray that it may be made imperative upon all parties building bridges across the Ohio river to construct them so that there shall be not less than five hundred feet clear water between them. And your memorialists, &c.

The memorial was adopted, and on motion of Mr. Gray, a committee of three (subsequently changed to five) was appointed to procure signatures. The following is the committee: Messrs. Gray, Batchelor, Beltzhoover, Gordon and McDonald.

REMARKS OF HON. THOMAS HOWARD.

Thomas Howard being present, was called upon to address the meeting. He said if the proposed slack-water was made in the Ohio, and the talked of ship canal made from the Ohio to the lakes, the Pittsburgh coal trade would reach to New York City, and the gas manufactured there would be made from Pittsburgh coal, because it is the best for the manufacture of gas. He spoke of the bills now before Congress in the aid of commerce, and said that they should be pressed.

Mr. Howard's remarks were received with applause.

On motion of Mr. Gray, a resolution was adopted requesting Hon. J. K. Moorhead and Hon. Thomas Williams to use all their influence to obtain the passage of a law, prohibiting the obstruction of the river channel.

On motion, adjourned.

The Railways of Pennsylvania.

Pennsylvania has retained, with remarkable tenacity, her old rank in the Union, despite the rapid growth of the young giants of the West and the decadence of Commonwealths which surpassed her in population and wealth in the early days of the Republic. This gratifying maintenance of a high position in the most progressive of nations is evidently due to the rapid development of inexhaustible treasures of iron, coal and petroleum, and the advancement of manufacturing and commercial interests. The underlying cause of prosperity, however, lies still deeper. It is to be found in the fact that more money has been expended in constructing railways, and more miles of iron track have been laid down in the Old Keystone than in any other American State. Without the aid of this most powerful of modern agencies immense districts would have remained unproductive and profitless wild lands, and instead of attracting emigration a large proportion of the native children of the Commonwealth would have been compelled to seek subsistence in more fertile regions. It would be an instructive but impossible task to minutely trace the direct influence of the railway lines upon the prosperity of the counties they traverse. Nothing, however, could more powerfully illustrate their benefits than the universal recognition of the fact that they are a necessity, and the earnest struggles to secure their extension into every district possessing interests represented by progressive men. Get a railroad—honestly, and on good and favorable terms if you can—but get a railroad, has been the standing exhortation of

the wise men of every neighborhood, until only a very few Pennsylvania counties remain unvisited by the daily trips of locomotives, and even their isolation cannot be much longer protracted. Railways of all kinds, from short local lines to great highways rising into national importance, and from rude freight roads to first-class passenger avenues of travel, have been constructed.

The Auditor General's Report for 1867 contains much valuable statistical information illustrative of the extent and character of our vast system of internal improvements, but it is difficult to realize, even from its imposing array of figures, the herculean labors and the wonderful facilities for travel and transportation they represent. The number of railroads operated by steam is 93; of roads operated by horse power, 28; and of canal companies, 13. The total cost of the construction and equipment of the roads operated by steam, exclusive of several companies from which returns were not received, exceeded three hundred millions of dollars. The length of the main lines is 3,097½ miles; the number of branch roads, 89; the number of engines reported is 1,958, of first-class passenger cars, 940; of baggage, mail and express cars, 498; of freight cars or trucks, 17,304; and of coal cars, 32,526. The transportation of 1867 is thus tabularized:

Number of through passengers on main road..... 4,392,964
Number of passengers (all classes) 19,232,103
No. of tons of 2,000 lbs. through freight on main road..... 7,550,587
Gross amount of tonnage..... 35,562,319

The importance of the mineral interests of the State, and prominent relation they bear to the entire freight transportation, is forcibly illustrated by the fact that more than two-thirds of their tonnage consists of mineral products, viz.:

Anthracite coal.....	15,482,140 tons.
Bituminous coal.....	4,331,378 "
Petroleum.....	834,624 "
Pig iron.....	628,779 "
Railroad iron.....	858,950 "
Other iron or castings.....	349,227½ "
Iron and other ores.....	1,501,564½ "
Lime and limestone.....	735,654½ "

Total..... 24,822,317½

The table specially devoted to the classification of freight, indeed, makes the proportion even larger than we have given above, for it embraces only an aggregate of 30,861,810 tons, more than four-fifths of which consists of the mineral products above enumerated. Pennsylvania thus furnishes, from resources which scarcely exist in many other States, a greater basis for railway transportation than is afforded by their entire products.

The general character of the other freight transported by the railways of the Commonwealth in 1867 is indicated by the following statement:

Agricultural products.....	1,196,386½ tons.
Merchandise.....	1,209,506½ "
Manufactures.....	693,790 "
Live stock.....	952,750 "
Lumber.....	1,246,680 "
Other articles.....	886,035 "

Total..... 6,187,198 "

Financial aggregates are summarized in the statement that the annual expenses for maintaining roads and real estate, repairing machinery and operating, exceeded thirty-two millions of dollars, while the current revenues amounted to more than seventy millions of dollars.

The report affords striking evidence of the rapid extension of the railways of the Commonwealth and of the increase of their business. The amount of capital stock paid in has been doubled during the last five years. It rose from one hundred millions of dollars in 1863 to more than two hundred millions in 1867, and the funded and floating debt increased during the same period from eighty-two to one hundred and thirty-four millions. The increase, not merely of receipts, but of business, has kept pace with the enormous increase of current and permanent railway expenditures. The wonderful impetus given to transportation soon after the war had fairly commenced has been marvellously well maintained, and the statistics bearing on this point are peculiarly instructive. The comparative statement of passengers carried for five years gives the following results: in 1863, 9,964,251; in 1864, 13,895,492; in 1865, 17,326,394; in 1866, 17,097,801; in 1867, 19,232,103. The comparative statement of tonnage during the same period is in 1863, 19,256,588; in 1864, 21,789,178; in 1865, 21,800,300; in 1866, 29,393,216; in 1867, 35,387,370. The comparative statement of receipts and expenses is thus reported:

	Receipts.	Expenses.
In 1863...	\$39,247,631 68	\$19,695,967 54
" 1864...	52,091,892 55	30,020,069 30
" 1865...	65,355,219 66	41,886,175 10
" 1866...	70,440,552 12	46,901,999 17
" 1867...	70,205,868 64	47,818,202 04

We are aware that there are some discrepancies in the statistics we have given, but they exist in the original report, and were evidently caused in most instances by returns appearing under one head which were omitted under another of an analogous character, and they are not of sufficient importance to seriously affect the deductions we have drawn.

There are no means afforded by the report for ascertaining with precision the proportion of the railway work which is done exclusively for citizens of this Commonwealth, but it is evident that if we throw out of view the transportation of coal and iron to other States, and do not consider the business of a few roads which are intended rather to traverse a small section of our territory than to minister to its wants, an immense amount of the residuum is based on home inter-communication or purely State travel and transportation.

The detailed statement given by various companies in regard to the characteristics of their roads, the number of accidents, and the speed of trains, show that the Pennsylvania railways compare favorably with those of other States, and the citizens of this Commonwealth have no cause to fear that here railway managers will fail to keep pace with the progress of the times. The most sanguine dreams of the early days of internal improvement agitation have already been far surpassed, and the future is full of promise of new safeguards and conveniences.—*Mining Register.*

The receipts of the Western Union Railroad Company for the week ending May 7:

	1868.	1867.	Inc.	Dec.
Freight.....	\$8,446 61	\$9,121 57	.....	\$634 96
Passengers	3,128 95	2,719 50	\$409 45	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$12,340 55	\$12,536 07	\$439 45	\$634 96
Less.....	.....	.....	439 45	.....
Decrease.....	.....	.....	.....	\$195 51
Receipts from January 1 to May 7:	.....	.....	.....	.....
1868.....	.....	.....	.....	\$197,887 68
1867.....	.....	.....	.....	156,382 85
Increase.....	.....	.....	.....	\$31,504 83

The Pneumatic Process.

The *Miners' Journal* contains a lengthy article describing the Bessemer Steel Works at Troy, from which we make the following extracts:

THE LIMITING QUESTION.—The greatest draw-back, and, in fact, the limiting question, to the pneumatic invention, as applied to the manufacture of steel and iron, is the question of purity. Iron must be neutral in quality—containing neither sulphur or phosphorus in appreciable quantities, to be successfully treated by this mode. Even charcoal iron containing either one or the other cannot be made use of in the present state of the metallurgic art; while we do not know and have not heard of any anthracite iron answering the purpose. And it is at present stated by those most interested in the process, and the patents, that anthracite iron cannot be used. Though Europe contains a great variety of the ores of iron, it has been stated, on what is considered good authority, that only one-sixth of the ores of Europe will produce metal of sufficient purity to produce steel by the pneumatic mode, and still fewer ores which can be converted into steel by the older processes, excepting as puddled steel by the puddling process!

The impurity of the fuel adds to the impurity of the metal, and even a pure ore or a pure metal may be seriously deteriorated by the use of an impure fuel. Therefore the use of the cupola with the purest anthracite coal as a fuel, for melting the pig metal, must injure the resulting steel more or less. In the air furnace, or reverberatory hearth, however, no impurity is added to the metal, but, on the contrary, it is to some extent improved. We have no doubt that even anthracite iron would be improved by this process of melting, but it can scarcely be expected that the mere melting of the pig metal will remove all the chemical impurities. If this is so, then we have it performed every day in our puddling furnaces, and our puddling mill operations ought to produce "puddled steel" from anthracite iron, which would, or should, be equal to ordinary Bessemer steel from iron melted with anthracite coal in the cupola. That this may and will be accomplished, we cannot doubt, for even now pig metal which cannot be converted into steel by the pneumatic process is elaborated into excellent puddled steel rails by the "puddling" method. But experiments of this nature with the Bessemer converters are terribly expensive and uncertain, and even the most practical and experienced men are apt to be deceived.

OUR SUPPLY OF NEUTRAL IRON.—We have an unlimited supply of pure ores in this country, and there are innumerable localities where the purest and best of pig metal can be produced; but we fear the most available sites for the production of the Bessemer steel are not to be found in the anthracite regions. In the present state of the art, neutral charcoal iron is a necessity. In this process the cost of fuel is a small object, since a pure metal can be run direct from the charcoal furnace into the converter and be cast into steel ingots, worth from \$100 to \$150 per ton, instead of common pig, worth only \$30 to \$50 per ton! Charcoal furnaces long out of blast may be profitably revived, since the amount of fuel or labor expended is but little more to produce steel ingots than to produce common pig, while the first cost is only trifling in comparison to the profits.

There are many points in Pennsylvania

and particularly in Virginia, Tennessee and North Carolina, where steel ingots can be made direct from the charcoal furnaces with much profit, but where charcoal pig of the best quality would not pay for manufacture and transportation.

Ohio and Mississippi Railway.

The following is a statement of the earnings and expenses of the Ohio and Mississippi Railroad for the years ending December 31, 1866 and 1867:

Earnings.	1866.	1867.
Passengers.....	\$1,615,596 42	\$1,423,210 56
Freight.....	1,581,476 10	1,872,428 25
Miscellaneous....	183,510 97	157,680 46
Total.....	\$3,380,683 50	\$4,459,319 27
Expenses.....	2,329,324 20	2,395,790 66

Earnings less exp's..	\$451,250 30	\$2,063,528 61
Extraordin'y exp...	\$349,286 03	\$777,073 07

The receipts and disbursements in 1866 and 1867 were as follows:

Receipts:	1866.	1867.
From earnings...	\$3,285,458 32	\$3,331,258 07
Less paid on ac't of expenses.....	2,607,309 25	2,115,297 92
Total.....	\$678,148 07	\$1,215,960 15

Revenue of previous years.....	41,580 37	97,924 07
Chair'n of Trustees, on account,	98,104 58	14,675 46
Other sources.....	119,826 87	115,999 88
Materials used....	233,620 75	113,803 49
Cash on hand Jan. 1,	262,077 81	255,148 46

Total.....	\$1,433,358 45	\$1,783,511 51
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Disbursements:

Ballasting road bed, etc.....	\$139,497 73	\$193,896 06
New cars & engines..	129,968 51	192,869 93
Ind. & Cin. Railroad Co., use of third rail while rebuilding the Miami bridge.....	29,162 66	90,017 41
Rebu'ld'g Miami br'ge on account.....	8,348 31	325,692 93
Rent of rolling power,	45,220 00	33,915 00
Real estate on acct...	4,700 00	16,627 00
Pay tools & arrears'ges,	74,335 73	113,144 17
Sundry account.....	272,439 45	261,084 07
Materials on hand....	113,803 49	114,198 46
Interest coupons on mortgages.....	390,734 11	287,860 99
Cash balance, Dec. 31,	225,148 66	154,295 50

Total, as above...	\$1,433,358 45	\$1,783,511 51
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The equipment of the road January 1, 1868, was as follows: 79 locomotives, 27 first-class, and 3 second-class passenger coaches, 4 night cars, 2 paymasters, 4 mail, 9 baggage, 6 Adams Express, 1 express stock, 28 caboose, 84 Diamond Line, 420 box, 40 box stock, 34 rack stock, 220 high flat, 93 low flat, 220 coal, and 4 tool and wrecking cars.

The trustees of creditors and stockholders of the Ohio & Mississippi Railroad Company (E. D.), having, at a sale made on the 7th of January, 1867, under a decree of the United States Circuit Court, upon a foreclosure of the second mortgage, purchased the property of the Ohio & Mississippi Railroad Company, extending from Cincinnati to Vincennes, 192 miles, a new company was organized on the 18th of November, 1867, under the corporate name of the Ohio & Mississippi Railroad

Company of Ohio and Indiana, and the said Trustees having previously purchased the property of the Ohio & Mississippi Railway Company of Illinois, extending from Vincennes to East St. Louis, 148 miles, the two divisions were reorganized and consolidated on the 18th of December, 1867, under the corporate name of the Ohio & Mississippi Railway Company, extending from Cincinnati to East St. Louis, a distance of 340 miles. The basis of the reorganization and consolidation of these companies is as follows:

Capital stock—common	\$20,000,000
Capital stock—preferred 7 per ct.	3,500,000

Total.....	\$23,500,000
Consolidated mortgage bonds, 7 per cent., due January 1, 1898..	6,000,000

Total stocks and bonds.....	\$29,500,000
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The Trustees' common certificates, to be converted into common capital stock, exceed the required amount by \$226,604 44, while the preferred certificates to be converted into preferred capital stock is less by \$145,875 38 than the amount authorized. The net excess to be provided for, therefore, outside of capital stock, is only \$80,729 06. It is also stated that \$4,000,000 of the consolidated mortgage bonds are to be reserved in trust for the redemption of the old mortgages, while the remaining \$2,000,000 are to be used for improvements, etc.

The North Pacific Railroad.

[From the Detroit Post.]

The impeachment trial has occupied the time of Congress, and the attention of the country, to the suspension of much necessary business. The result anticipated and realized, there will, no doubt, be a rushing demand for the consideration of many interests of importance, that have of late been dormant. Among them will, no doubt, be that of the great contemplated highways to the Pacific. It behooves the people of the Northwest, especially, to be on the alert. Detroit and Michigan should lose no time in urging the consideration of the measures needed for the immediate commencement of the construction of the North Pacific Railroad, and its efficient prosecution to an early completion. The South and South-west are awakening to the importance of the immediate prosecution of the Southern route to the Pacific, with its branches to San Diego and Guaymas. The Kansas Pacific Railroad, or Southern, ask for the like financial aid granted to the Central route, to be extended to it. The Northern Pacific Railroad are equally entitled to make the same urgent request, on their behalf. The question whether one or both shall receive it, during this session of Congress, is one of great moment at this present time. Doubts and objections as to the propriety of any further financial aid, by grants of land or loan of bonds, are now, and of late have been, urged. Attempts to alarm the ignorant working classes have been, to some extent, undertaken, successfully, by some aspiring demagogues, for their own selfish ends. There is reason to fear that Congress may hesitate about taking the responsibility at this session, of granting the aid needed, to both the Southern and Northern routes. Rivalry and jealousies between those whose interests are equally just, yea common, may be made to work adversely, if they can be separated, and preference, in time and form

of aid, be given to the one or other. It must prove injurious, if not disastrous, to the interests of both, should such a policy be adopted. There is no reason why the North should wait for the South to be first moved, or the South for the North. The true policy is equal justice. Both routes are needed, and of value to the country. And both may be effectually secured, and their speedy construction completed, if *at once* the same aid is extended to each. Postponement of either in preference of the other, will be sure to awaken sectional jealousies and strifes, and initiate a fresh war of interests, of which the country has had sad experience.

There is no need or reason why Congress should increase the public debt one dollar, by aiding both the Southern and Northern Pacific Railroads with United States bonds, as has been done toward the Central. For the opportunity is at present propitious and should be seized, to create a sinking fund for the payment of the United States debt, which may now be done, and if faithfully prosecuted in twenty years extinguish the national debt, by aiding in a more effectual way the Pacific railroads. The general features of this very simple and practicable plan, were presented in the last communication you received and published from your present correspondent. Assuredly a work of such vast importance, if it can be secured in the way of aiding these Pacific Railroads and their collateral branches should command public attention and be advocated by every enlightened citizen and statesman. Instead of issuing Government bonds—as the editors of the *RAILROAD RECORD* have said, in their number of the 23d of April of that admirable paper—"to be handled and hawked about the market of the world, at a discount, in aid of their construction, and also allowing the roads to issue an equal amount of first mortgage bonds on their property, which is a prior claim to that of the Government, *let no more bonds be issued except from the roads to the Government*; and let all the aid required, be furnished by the Government to the roads in the regular currency of the Treasury, the gentle increase of which at this time would be almost universally regarded as an advantage to the business interests of the country. * * * "For the aid thus granted, *the Government should hold the first and only claim against the roads*—first mortgage bonds—which, with its products, should be sacredly devoted as a sinking fund, and which in 20 years would entirely extinguish the national debt."

The importance of such aid, and especially of the Northern Pacific Railroad in its bearing on the interests of the whole country, has been recently set forth in the *New York Times*, giving the proceedings of the New York Chamber of Commerce on the subject and the report of the Committee on the Northern Pacific Railroad. The remarks of Gen. H. Walbridge, in submitting the report on behalf of the committee, and especially those of Mr. W. D. Ogden, at Chicago, are worthy of universal attention. We commend them to the people generally. They should be published and scattered all over the North-west. Now is the time for action. The Board of Trade of Detroit should take the subject into their consideration promptly, and follow the example of the New York Chamber of Commerce and the Boards of Trade of other Eastern cities, and let the voice of Michigan be heard; "No longer delay; no waiting till the Southern States are reinstated in the Union and have their repre-

sentation in Congress." Let Congress do the South and the North equal justice now, and afford no opportunity or temptation for rival hostilities.

The American Central Railway, a projected air line road from New York to Omaha, has, we learn, finally assumed a definite shape, and the enterprise is to be pushed through as fast as money in abundance can do it. The entire air line will be made by the consolidation of the Allentown road to Harrisburgh, the Pennsylvania Central to Pittsburgh, the Fort Wayne and Chicago to Fort Wayne, and the American Central to Omaha. The company was fully organized at Fort Wayne, Indiana, on the 5th inst., and the road will be one of the most important now building in the United States. Its length is to be five hundred and eighty-five miles, and by its directness will shorten the route now traversed between this city and Omaha by one hundred and thirty-six miles. When the Pacific Railway is completed this new road will constitute with it a grand trunk from ocean to ocean.

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BALTIMORE,

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} Dec. '87.

SUSPENSION

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BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R.R., Indiana & O.
Aug. 2, 1865.]

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Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	3,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
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Provided for all Night Trains, and Smoking Cars for all
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Ample time is allowed, at all hours,
for meals.

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Apply in Cincinnati at New Depot of Cincinnati, Hamilton
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CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown at 12:20 p. m.; Easton
at 1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

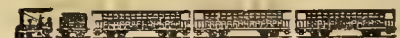
2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

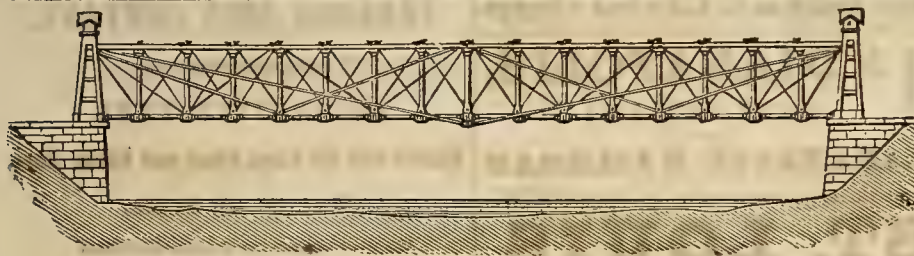
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, Gen'l Ticket Agent.



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In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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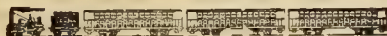
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THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

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T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

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Railroad, Car and Machine Shop

SUPPLIES,

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MACHINERY OF EVERY DESCRIPTION

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RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

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Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

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Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner, the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for
Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT.

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure through tickets and through checks to **WASHINGTON CITY.**

W. P. SMITH, Master Transportation, Baltimore.
J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 40 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	" "
Arrive VINCENNES,	5 15 "	6 35 "	" "
Leave " "	5 20 "	6 40 "	" "
Arrive ODIN,	9 35 "	10 30 "	" "
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET, Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI

—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 30 am	2 30 am
Cairo and St. Louis Express.....	2 20 pm	4 08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10 10 am	8 35 am
Connersville and Cambridge City.....	4 00 pm	9 15 am
Lawrenceburg.....	4 45 pm	2 20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the L. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

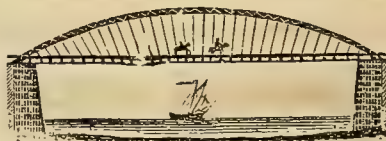
MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, MAY 21, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:30 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond and Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:30 P. M.	5:20 P. M.	
Bellefontaine and Sandusky.....	6:20 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:30 P. M.	10:31 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express.....	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION			
Cincinnati, Cambridge City and			
Indianapolis Mail.....	6:00 A. M.	10:10 P. M.	
Cincinnati, Cambridge City and			
Indianapolis Express.....	5:10 P. M.	10:30 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:40 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

What is and will be the Country in the Mountain Territories?

We confess to be much interested in this question; partly because of its intrinsic importance, and partly because the most opposite representations are made of it. A gentleman, who was several years in the mining territories, and who is very accurate in his statements, says: that it cannot be a populous country, because it will not be an agricultural country. It will not be an agricultural country; because, he says, it requires irrigation; but, in this he was speaking more particularly of the Eastern slope. Of this, however, he says, there is a belt on the Eastern declivity of the mountains, about twenty miles in breadth, where wheat and other grains grow well without irrigation; and also, that the Western slopes are a grazing country. Well, if we have an abundance of grazing land, and a large belt of grain country, it seems to us there will be plenty of food and room for a large population; but we do not feel satisfied that there is not a vast deal more in that country, than travelers represent, as possible. It is not barren, like the African Desert; and is not rocks and sands; but the greater part of it has soil and herbage. It is also fully watered by streams. Now, in a country where grass will grow, and which has plenty of streams, and to which railroads will come, it seems to us there must be capacities for agriculture, and both food and employment for population. Let us take a look at these mountains, or more properly, Midland territories. They are (including the whole Midland):

	Square miles.	Population.
New Mexico.....	124,480	100,000
Colorado.....	106,475	50,000
Idaho.....	200,000	20,000
Montana.....	180,000	30,000
Dakota.....	152,500	30,000
Utah.....	109,600	45,000
Arizona.....	130,800	10,000
Aggregate.....	1,003,855	285,000

The population estimated above is probably too small. The area, it will be observed, is (excluding our Alaska purchase,) one-third of the whole United States. Looking to its water courses, we find, that all the great streams on the continent emerge from the Rocky Mountains, and that the country is thus watered (so far as streams are concerned,) in the most abundant manner. The Missouri, the Arkansas, the Red River, the Rio Grande, the Colorado, and the Columbia all rise in the mountain regions, and diversify the country with a multitude of branches. Let us now see what evidences we have of the growth of grain, or other products. We have the following products, raised in portions of this vast territory:

	Wheat.	Indian Corn.	Oats.
	Bushels.	Bushels.	Bushels.
Utah.....	382,697	93,861	188,036
New Mexico.....	446,075	710,605	7,491

These are the only territories from which we have any agricultural returns; but, since New Mexico is a fair type of that whole region, we must conclude that there are considerable portions of that region well adapted to agriculture. The Southern vallies are adapted to Indian Corn, and the slopes doubtless to grass. In New Mexico, there were in 1860, 1,326,470 acres of farm lands, and this quantity had quadrupled in ten years. The population also increased 50 per cent. in ten years. Large numbers of domestic animals were kept, and a good deal of butter and cheese made. This exhibit is conclusive that New Mexico, no better than the other mountain territories, has agricultural resources and is fast filling up with people. Let us look at the physical aspects of these territories, according to the latest descriptions. ARIZONA has considerable bodies of barren land, but is watered by the Gila and Colorado; and the open vallies of the Great and Little Colorado, in the country of the Nevajo Indians, is said to be well adapted to agricultural settlements. COLORADO is drained on the Eastern side by the Platte, Kansas, and Arkansas. This is perhaps the poorest of all these territories in point of agriculture. But, as we remarked, a belt on the Eastern slope is suitable to grain, and there are many small vallies on the West side where grain can be raised.

IDAHO (Montana being cut off,) lies mostly on the Western slope of the mountains, and is one of the territories to which, as to Colorado, most objection is made on the score of productiveness. Much of it is an elevated plateau, with well watered and fertile vallies, where the antelope roams, evidence that there is abundance of grass; but being deficient in rains, it is said to be incapable of cultivation. This, however, must be taken with a good deal of allowance. To us it seems quite evident, that where grass grows there must be arable land. MONTANA was a part of Idaho, but was made into a new territory, and includes the head stream of the Missouri. This contains numerous slopes adjoining the ridges, as well as extensive bottom lands along the rivers capable of raising grain, and sustaining a large population. Montana is quite as likely to maintain a large population as Kansas.

DAKOTA.—This is not a mountain region at all, but is part of the great plain, which, gradually rising, lies between the Mississippi and the mountains. The chief rivers are the Missouri and the Yellow Stone, both of which are navigable for small steamers in their whole course through the territory. But the same complaint is made here, that was made of the other territories, that it is deficient in rains, and therefore not arable. We, however, suppose this to be greatly exaggerated; for it is admitted that the Eastern portion, towards Minnesota, is a good agricultural district, and population is now flowing in rapidly.

We have thus traced out, as far as is known, the aspects and qualities of these Middle territories. It is plain that Montana, Dakota and New Mexico, may be made sufficiently agricultural to sustain a moderate population. They will be as populous in proportion, as Kansas and Arkansas. On the other hand, we think Idaho, Colorado, and Utah, will contain much fewer people. Utah is in a valley, but much of it is entirely barren. Idaho and Colorado lie, where irrigation is needed, and population must therefore, be sparse. No part of these great districts will have a dense people, like the Ohio Valley; but, looking to the easy transportation of grain to the great cities and towns, which must arise on the great railroads; to the manufacturing facilities; and particularly to the vast deposits of all kinds of minerals, we think that whole country will sustain a population fully equal to the present rate in New England; about fifty to a square mile. This will give *fifty millions of people* in half a century. What this country will be then the imagination can scarcely paint; and what the trade over the continent, and the business of the Pacific Railroads will be, are scarcely within the limits of our present powers of calculation.

Newport.

RAILROADS—BRIDGES.

The following are the ordinances passed by the City Council of the city of Newport, granting the right of way for railroad and bridge purpose:

"An ordinance granting to the Louisville, Cincinnati and Lexington Railroads the right of way through the city of Newport, and providing for the construction, control and management of the same.

"SECTION 1. Be it ordained by the City Council of the City of Newport, that from and after the passage of this ordinance there shall be granted unto the Louisville, Cincinnati and Lexington Railroads, their successors and assignees, the right of way for the purpose of constructing and operating a railroad of single track for steam locomotives, and freight and passengers, on, over and along the streets hereinafter named, as follows, viz.: Commencing on the line of Liberty street, if practicable, and if not, in any cross street south of Mayo street, and extending on, over and along such streets, to the street at the foot of which the Newport and Cincinnati bridge may be constructed, and down the same to the said bridge. The further privilege is granted to said railroads to lay down on said streets all turn-outs that may be necessary to the going to and coming from said bridge, and any depot grounds, workshops or other building necessary for the transaction of the business of said railroads; also the right to lay along the bank of the Licking River side tracks to any warehouse or manufacturing establishments now or that may hereafter be constructed, not further north than Swift's rolling-mill, for the purpose of receiving and delivering freight.

"Sec. 2. The city grants to said railroad

the right to use, without charge, such portion of the unimproved wharf east of Monmouth street, during the construction of said bridge, not to exceed a period of two years from the passage of this ordinance, as they may need for receiving material for the construction of said road and the transfer of the freight and passengers of said road across the Ohio river.

"Sec. 3. The object of this ordinance is to grant perpetually to said railroads the rights and privileges before specified, subject, however, to any rights and privileges the city has before granted; but in no case to subject the city to pay for any damages that may be done to private property by reason of said grant; provided, that said railroads shall construct their roads through the city so as to connect with the Newport and Cincinnati bridge at the foot of the street at which it may be constructed for the purpose of crossing vehicles and foot passengers, as well as for railroad purposes.

"Sec. 4. Said road shall be laid as near as possible in the center of the streets over which it may pass, and conform as near as may be to the grade of such streets, and the portion of the pavements of the streets to be taken up to place the track thereon shall be carefully put down again, and the track so constructed as to present the least possible impediment to the ordinary use of such streets; the said railroads shall keep the streets, over which they may construct their road, in good repair between the rails and within three feet outside of the same, with suitable bridges over the gutters crossed by them the entire width of the streets; so as to permit the flow of water under the same, and, in case of their failure to keep the said streets in good repair, the city, upon ten days' notice being given, may proceed to repair the same at the cost of the said railroad.

"Sec. 5. No locomotive shall run or train be drawn at a greater speed than six miles an hour within the corporate limits, and the steam whistle shall not be used therein except as a signal, or in case of danger. The bells of the locomotives shall be constantly rung, when running in the city, and the conductors and engineers shall keep a vigilant watch for teams, vehicles and persons on foot, and on appearance of danger to such teams, vehicles and persons on foot, shall stop the locomotive as quickly as can be done. Nor shall trains or cars be allowed to remain on the track in the streets, except only when in actual process of being loaded and unloaded.

"Sec. 6. The city reserves the right to make all necessary improvements in said streets, in the way of drainage, sewerage, water and gas privileges, not interrupting, however, the use of said railroads in said streets more than shall be absolutely necessary.

"Sec. 7. This ordinance shall take effect as soon after its passage as a contract shall be executed in accordance therewith, and in case said bridge shall not be constructed for foot-passengers and vehicles, then the same shall be void."

"An ordinance granting to the Newport and Cincinnati Bridge Company the use of a portion of a street for the purpose of a bridge.

"SECTION 1. Be it ordained by the City Council of the city of Newport, that a perpetual grant is hereby made to the Newport and Cincinnati Bridge Company of such portion of Saratoga street if found practicable, and if not so found, then of any other street in said city, between the Licking River and

the east line of East Row street, as may be necessary for the construction of abutments, superstructure and approaches to said bridge, and for the use and operation thereof.

"Sec. 2. Said bridge shall be constructed and used for the passage of vehicles and foot-passengers across the Ohio River and for railroad purposes.

"Sec. 3. This ordinance shall vest in said company only such rights and privileges as the city of Newport may lawfully grant, in such streets for the uses and purposes before mentioned, and said bridge shall be constructed so as to present as little obstruction as possible to the ordinary use of such streets; and the said company shall have the free use of such portion of the unimproved wharf east of Monmouth street as they may need in the construction of said bridge, not to exceed the period of two years from the passage of this ordinance.

"Sec. 4. In consideration of the foregoing grant the rates of toll over said bridge shall be as follows, viz: Packages of one hundred tickets to foot passengers for one dollar, to all persons applying for the same; one horse and dray, ten cents for a single crossing; one horse and express wagon, ten cents; one horse and buggy, fifteen cents.

"Sec. 5. This ordinance shall take effect upon the bridge company filing a written acceptance of the terms and conditions contained therein.

Boston and Worcester Railroad.

The income from operations of this road for the years ending November 30, 1866 and 1867, were as follows:

	1866.	1867.
From passengers..	\$1,028,695 85	\$1,003,725 27
" freight.....	772,534 15	739,184 45
" mails.....	14,164 26	17,448 50
" expresses...	57,414 15	136,479 92
" rents.....	18,383 97	33,699 78
" interest, etc.	23,537 16	11,963 68
Totals.....	\$1,914,729 54	\$1,942,501 60
Working expenses:		
Repairs of road....	\$237,025 48	\$170,159 69
" engines.....	103,728 00	85,758 37
" cars.....	145,629 64	52,459 02
" build'gs.....	146,904 55	70,051 45
" bridges.....	21,490 61	4,947 42
Fuel.....	131,641 78	130,661 60
Oil and waste.....	18,877 26	15,380 92
Wages of watchmen, switchmen and signal men.	25,903 44	25,338 82
Taxes, State and franchise.....	74,169 28	74,794 04
Taxes, State, city, town & county..	17,144 43	31,106 92
United States tax on receipts, etc..	48,370 07	29,974 87
Water tax at Boston and Worcester.....	5,771 58	6,555 89
Passenger expenses.....	131,496 86	144,354 87
Freight expenses..	228,591 16	223,278 76
Gratuities & damages.....	18,364 33	9,034 25
Rent of Agricultural Branch.....	21,635 23	9,039 67
Salaries, law exp., etc.....	47,724 51	50,331 00
Additional expenditures charged operating ac't....		27,853 50
Totals.....	\$1,424,528 21	\$1,161,080 46

Net earnings.....	\$490,201 33	781,421 14
Dividends, 10 per ct., & U. S. tax.	473,684 20	499,999 99
Surplus.....	\$16,517 13	\$281,421 15
Expenditures were made for additions and improvements in 1867, as follows:		
For lands.....	\$193 600 64	
New buildings.....	157,403 55	
New rolling stock.....	135,396 40	
New bridge.....	21,051 41	
Additional track for freight purpo- ses.....	20,401 50	
Total.....	\$527,853 50	
Deduct for construction.....	500,000 00	
Balance to operating account as above.....	\$27,853 50	
	1867.	1866.
Income per mile.....	\$28,152 20	\$27,749 70
Expenses.....	16,827 25	20,645 39
Net income.....	\$11,324 95	7,134 31

Showing an increase of \$4,190 60 of net income in favor of 1867. This speaks well for the increased economy of the management of the road. The report says:

The Grand Junction Wharf property in East Boston was conveyed to this Corporation by order of the Court, upon our bid of \$521,500, by deed bearing date March 6, 1867. Since that date the storage room has been increased by 300,000 cubic feet; some of the docks dredged, and a sea wall rebuilt, at total cost to \$53,182 71.

Five thousand shares of new stock were issued to the old stockholders July 1st, at its par value, one hundred dollars per share:

At your last meeting the directors were authorized to increase the construction account. A thorough revision of that account since 1850, would require additions which they have not deemed it advisable to make at present—and they have modified it only by adding the items which appear in the report of the Legislature, all incurred during the past year. The addition of these items makes the construction account equal to the present capital stock, viz.: \$5,000,000.

The road, road bed, bridges and rolling stock are in excellent condition.

We have put down 300 tons steel rails; 890 tons new iron; also 420 tons repaired rails; and have on hand 27 tons steel; 129 tons new iron, and 835 tons second-hand rails for future use.

We have used 47,248 chestnut sleepers, and have on hand 31,529.

We have used 5,977 cords of wood, and 11,906 tons of coal; and have on hand 4,303 cords of wood, and 5,983 tons of coal.

The charter of the Boston and Worcester Railroad corporation was approved on the 23d of June, 1831. Among the persons named in the act, are George Bond, Henry Williams, Eliphalet Williams, George Morey, and Nathaniel Hammond, who were subsequently directors.

The corporation was organized on the 25th day of July, 1831, and Nathan Hale, David Henshaw, George Bond, Thomas Motley, Daniel Denny, Joshua Clapp, and Henry Williams, were chosen as its first board of directors. Nathan Hale was chosen President, and George Morey Clerk and Treasurer; John M. Fessenden, Esq., was appointed Engineer. The construction of the road was commenced in July, 1832. It was opened for travel to Newton on the 16th day of April, 1834; to Needham on the 3d day of July; to

Hopkinton (now Ashland), on the 20th day of September; to Westboro', on the 15th day of November, 1834; and to Worcester, on the 3d of July, 1835.

A railroad from Boston to Albany was contemplated at an early period, under the administration of Gov. Lincoln, in 1826, a committee of the Legislature, one of whom is still a member of this Board, investigated the subject and reported in favor "not only of the practicability, but of the expediency of building a railway from Boston to the Hudson." An able board of commissioners examined the various routes, and gave a preference to that upon which, with variations, the Worcester and Western Roads were subsequently constructed.

The Commonwealth, however, did not pursue the enterprise, and the charter of this corporation was granted, as before stated, to private individuals. But it was the purpose and desire of those who engaged in this enterprise that the road should be extended to the State of New York. In the first annual report, the directors remark: "It is, however, hardly reasonable to suppose that after the proofs which will be given of the advantages of the railroad, both to the public and to the stockholders, it will fail to be continued in a very few years to the Connecticut river, and thence to Albany, in pursuance of the projects which have been long before the public." And in their next report we find the statement that a "petition was presented to the Legislature of the Commonwealth, at their last session, praying for the incorporation of a company with the necessary powers for extending the railroad from Worcester to the western boundary of the State towards Albany."

The charter of the *Western Railroad Corporation* was granted March 15th, 1833, to the individuals who then composed the board of directors of the Boston and Worcester Railroad Corporation. That Corporation was organized January 4th, 1836. The road was opened from Worcester to Springfield, October 1st, 1839, and to Albany, December 21st, 1841. Since that time various efforts have been made to effect a consolidation of the two roads, until under the act of 1867, a copy of which is appended, this corporation, on the 19th day of June last, passed the following vote:

Voted, That the stockholders of this corporation agree to unite and consolidate the same with the Western Railroad Corporation, in accordance with the act passed by the General Court of the Commonwealth of Massachusetts, entitled, "An act to authorize the extension of the Western Railroad to the city of Boston, and for other purposes," approved May 24, 1867.

Voted, That the directors be authorized and requested to endeavor to ascertain upon what terms such consolidation can be effected, and either to report the same, if ascertained, to the stockholders of this corporation at a special meeting to be called for that purpose, or, if said directors shall deem it expedient, to petition the Supreme Judicial Court for the appointment of commissioners, when and as provided by said act, and to take such measures as they shall deem expedient to protect the interest of said stockholders and corporation in reference to such consolidation.

On the 4th day of September following, the Western Railroad Corporation concurred in this action by a similar vote, and after various meetings of the boards and committees it was agreed that the stock in the two corporations should be equalized by the payment

of ten dollars on each share in this corporation to its stockholders.

These terms were approved and ratified at your meeting on the 16th day of December current.

Thus has been finally effected a consolidation of the two roads forming the line from Boston to Albany, and the purpose of the first board of directors of this corporation has been carried out.

The separate existence of the Boston and Worcester Railroad Corporation has thus terminated. The report ends the record of thirty-six years, and the Boston and Albany Railroad Company has taken the place of the Boston and Worcester, and Western Railroad Corporation.

Some, whose names were placed upon your subscription list when it was first presented, amid doubts and fears and urgent appeals to a capital city of about sixty thousand inhabitants, and a Commonwealth counting some ten times that number, that lived to see the former more than trebled, and the latter doubled in population. They have lived to see the United States bound together by the creation of a network of thirty-eight thousand eight hundred and fifty-one miles of completed railroads, representing one thousand six hundred and fifty-five million, four hundred and eighty-three thousand, eight hundred and twenty dollars (1,655,483,820). However barren the record, year by year presented to the changing body which has constituted this artificial person, may seem to be of anything calculated to awaken emotion, it is impossible for those to whom it represents so long a period of life and labor, to close it without feeling.

The success of the undertaking has demonstrated the sagacity of those who conceived and commenced it. Of those who have recently managed and developed it, it is not for us to speak.

For an unbroken period of thirty-three years, with unvarying regularity, the stock has yielded its annual product. A large debt has been paid from its earnings. The property has vastly increased in value, and passes into the hands of its new holders without incumbrance and in an admirable condition.

These results may be stated in a few words, but it is not easy to describe the toils, labors and anxieties which they suggest, and the accumulated mental and physical exertions by which they have been accomplished. Massachusetts may well be proud of its railway operatives—men upon whose watchfulness and fidelity the lives of millions daily depend—whose duty is discharged without the stimulus of praise, and often under unjust and indiscriminate censure. Among those whose task, less physically laborious, it has been to watch and direct these labors, we may recall with honor the names of some of the dead; and even this brief sketch of the origin and history of the corporation may not be without interest.

The list of the officers of the corporation appended to this report, furnishes ample evidence of the care with which your predecessors selected their representatives, as well as of the public interest and importance attached to the road.

Nathan Hale was intimately associated with other public enterprises, and for a long period of years enjoyed in the highest degree the respect and confidence of the community, justly yielded to his wisdom, integrity and public spirit.

Thomas Hopkinson, after acquiring a high reputation at the bar, left the bench to give

the last years of the prime of his life to the management of your interests—during which he retained and increased the confidence and respect of the community already given him.

George Morey, although less known as the incumbent of the official station, was a man of marked ability, and exercised a great influence in the management of public affairs, as well as of those of this corporation. Among their associates on the board of directors, the names of David Henshaw, George Bond, William Jackson, William Sturgis, Addison Gillmore, Israel Lombard and others, cannot but be familiar to those who best know the history of our city and State, and the public and private enterprises which have promoted the prosperity of both.

Two persons have been connected with the corporation for an unusual period. Daniel Denny was a member of the first board of directors, and has given to the corporation for more than thirty-six successive years the benefit of his sound judgment and his accumulated experience.

Horace Williams closes with the current year a long, faithful and honorable service, commenced in March, 1833, as a clerk of the corporation, of which he became the Treasurer in 1867—an instance not often paralleled.

But we should go too far were we to mention all those who have deserved an acknowledgment of their capacity, fidelity and useful services.

Nor do we feel at liberty to delay you longer with these reminiscences, but with our congratulations on the gratifying success of the undertaking and on the prosperous condition in which it passes into other hands, we close an official connection which leaves with all of us agreeable memories—for some associated with the recollection of many years—and present to you the last annual report of the Directors of the Boston and Worcester Railroad Corporation.

Not one of the 2,887,244 passengers transported during the year, has been injured in the cars.

We repeat our comment made in the last annual report, thus confirmed by this continual evidence of its justice, that "this is the best testimonial that could be given of the care and fidelity with which the employees concerned in the management of the trains have performed their duty."

Number of passengers carried in the cars, 2,887,244; do. carried one mile, 44,117,376. Tons of merchandise carried, 597,400; do., carried one mile, 21,976,025.

Length of main line 44½ miles. Length of double track, 44½ miles. Length of branches, 24 miles. Length of sidings and other track, 22 miles.

STATEMENTS OF ACCOUNTS, NOV. 30.

	1866.	1867.
Construction and equipment	\$4,500,000 00	\$5,000,000 00
Fuel, iron, etc., on hand.....	165,200 85	261,497 64
Loans and notes receivable.....	289,519 22	87,604 84
Freight uncollected	176,030 19	.....
Grand Junction R. R. 1st & 2d mort. bonds...	354,930 00	488,975 93
Land not charg'd in construction acc't.....	109,698 92	106,270 80
Balance due from other r'ds, etc.	128,297 38	186,547 15
Cash.....	36,133 54	113,719 24
	\$5,759,810 10	\$6,244,615 60

Capital stock.....	\$4,500,000 00	\$5,000,000 00
Reserved income	600,338 20	915,885 20
Insurance fund...	21,110 25	29,220 25
Dividend payable Jan. 1.....	236,842 10	263,157 89
Unclaimed dividends.....	7,914 00	4,670 00
Bills unpaid	318,430 17	.....
Balances due to other roads....	75,175 38	31,682 26
	\$5,759,810 10	\$6,244,615 60

President—GINERY TWITCHELL.

Directors—Ginery Twitchell, Daniel Denny, Nathaniel Hammond, Benj. F. White, Emory Washburn, Peter T. Homer, D. Waldo Lincoln, William Claffin and George P. Upham.

Vice President—D. WALDO LINCOLN.

Superintendent—ABRAHAM FIRTH.

Treasurer—HORACE WILLIAMS.

Chicago Chamber of Commerce.

KANSAS PACIFIC RAILWAY.

[From the Western Railroad Gazette.]

The following resolutions were offered on Change on Tuesday and unanimously passed. The interests of this city are in entire sympathy with the pushing of this magnificent enterprise, and we trust the aid asked for will be accorded:

WHEREAS, The Kansas Pacific Railway has approached within a few miles of the point to which the aid granted by the Government under existing laws extends, and,

WHEREAS, The work is one of national importance, and cannot be successfully prosecuted without the assistance of the Government, therefore, be it

Resolved, That we regard the extension of this road through New Mexico, Arizona, and California, to the Pacific coast, as a measure of sound national policy, both to insure military economy and the development of a vast area of territory filled with mineral, pastoral, and other wealth, situated six to seven degrees south of the Union Pacific Railroad, and in no way tapped or developed thereby.

Resolved, That it will lead to a peaceful solution of the Indian question, and while gradually but surely removing the necessity of maintaining expensive military forces in the region traversed, will permit the country to be settled up, and vastly increase the taxable wealth of the nation; that it will afford an avenue of approach to the rich mines and semi-tropical productions of Northern and Central Mexico, ensuring the trade of these districts for our own Western and Northwestern States, and avoiding the possibility of future complications from foreign aggressions in that disturbed country, and that it will secure a line of communication across the continent, directly accessible by rail connection with all parts of the United States, and especially recommended by the abundance of timber and coal along the route, and by the mildness of the climate.

Resolved, Therefore, since only a loan of the public credit is needed to secure these advantages, and the past history of the company has shown that the annual saving to the Government in the transportation of troops and supplies alone largely exceeds the interest upon the aid required to build the road, we respectfully urge our Senators and Representatives in Congress to assist, by their votes and influence, in securing the aid required from Government to insure the immediate extension of the Kansas and Pacific Railroad from its present terminus to the Pacific Ocean.

Our Railroad.

In the Senate of California, on February 26th, Mr. Conn, of San Bernardino county, introduced the following, which we find in the Sacramento Union of February 29th:

WHEREAS, The subsidy granted by Congress to the Union Pacific Railway, Eastern Division, terminates near the one hundredth meridian of longitude; and recent surveys have demonstrated the practicability of the route along the thirty-fifth parallel of latitude, near which the proposed line of their road is located; and, whereas, although that route presents great advantages for the location and operation of a railway, no private corporation can build such a road without Government aid; and, whereas, said company has now finished and is in running order and operation about 335 miles of road westward from Kansas City; and, whereas, a railroad between San Francisco and the valley of the Missouri, by the Southern route, and passing through the Territories of Arizona and New Mexico would traverse a region of country, an empire in extent, of vast mineral and agricultural wealth, and especially recommended by the mildness of the climate and low altitude of its mountain passes, but which is almost uninhabited by civilized men; that the speedy construction of said road would save the General Government millions of dollars annually to the cost of military occupation and protection, and by developing the resources of a broad belt of country nearly 2,000 miles in length, would add enormously to the productive power and wealth of the nation; that whilst the distance between the parallel upon which the said road would run and that upon which the Central Pacific and the Union Pacific companies are now pushing their roads to completion with such marvelous energy and success is so great—six or seven degrees of latitude—as to forbid any degree of jealousy between the said roads by these different routes, the opening of two roads across the continent, would nevertheless secure a healthful competition most advantageous to the public and to the Government as a transporter; therefore,

Resolved, By the Senate and Assembly of the State of California, That the Congress of the United States be respectfully requested to grant to the Union Pacific Railway, Eastern Division, now nearly completed to the one hundredth degree of longitude, and also in favor of any connecting road on the Pacific side, aids, franchises and loans, as have been or may be granted in aid of said road by the Central route.

Resolved, That our Senators in Congress be instructed, and our Representatives be requested, to do everything in their power to secure favorable and speedy action upon the foregoing memorial.

The resolution was adopted under suspension of the rules and transmitted to the Assembly.

The receipts of the Western Union Railroad Company for the week ending May 14:

	1868.	1867.	Inc.	Dec.
Freight.....	\$8,712 57	\$7,570 23	\$1,141 74	.....
Passengers	3 230 80	4,481 05	.....	\$250 25
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$12,668 37	\$11,746 88	\$1,171 74	\$230 25

Receipts from January 1 to May 14:

1868.....	\$200,556 05
1867.....	168,129 73
Increase.....	\$32,426 32

Nashville and Decatur Railroad.

The Nashville and Decatur Railroad Company was organized under a law of the State of Tennessee, passed April 19, 1866, whereby the companies owning the line of railroad from Nashville, Tenn., to Decatur, Ala., viz.: the Tennessee and Ala., the Central Southern, and the Tennessee and Alabama Central, were authorized to consolidate their interests. The articles of agreement required by the act of incorporation were signed on the 21st day of November, 1866, and the consolidation took effect on the 1st day of January, 1867. The road, as now organized, is constituted as follows:

Main line—Nashville to Decatur.....	Miles. 120
Branch line—Columbia to Mount Pleasant.....	2½

The roads composing this line were in possession of the United States during the war, and operated by the military authorities. As most of the other Southern railroads which fell into the hands of the Federal or Confederate authorities they suffered much from hard usage, and when returned were in a very dilapidated condition. The surrender to the companies was made on the 15th September, 1865. The roads, however, were bare of rolling stock, but the officers having been able to purchase Government engines and cars to the extent of \$304,195, they were enabled to commence operations without delay. The following statement shows the earnings and expenses of the line from the date of surrender to the 30th September, 1867:

	To Dec. 31, '66. 15½ months.	To Sep. 30, '67. 9 months.	Total. 24½ months.
Gross earnings.....	\$744,974	\$374,639	\$1,119,613
Expenses.....	420,313	263,507	684,120

Net earnings...\$324,661 \$110,232 \$434,893

All these earnings were used in reconstruction, and in reducing the indebtedness of the companies to the United States Government. Under the consolidation the Nashville and Decatur Company assumed all the indebtedness of the several companies. On the 1st October the bonds and other liabilities of the Consolidation stood as follows:

Tennessee State loan, including interest funded up to Jan. 1, 1866.....	\$2,115,176
Tennessee and Alabama Railroad income bonds, due 1870.....	205,000
Franklin turnpike bonds.....	46,625

Total funded debt.....	\$2,366,801
United States Government for rolling stock, &c.....	394,927
Bills payable.....	243,832
Sundry accounts due.....	91,983
Tennessee and Alabama Railroad debts unadjusted.....	47,432

Total bonds and debts.....\$3,044,995

Against this is charged as follows:

Valuation of railroad and other property.....	\$4,766,991
Tennessee State loan bonds on hand.....	367,920
Sundry accounts.....	13,342
And cash on hand.....	16,928

Total property and assets.....\$5,175,081

Property and assets over liabilities.....\$2,130,086

In this account the share capital has no place. The books of record were lost during the war, and only a very wide estimate of the amount is given. The President estimates it at \$1,526,459. To relieve themselves from their floating debt the company are now issuing 6 per cent. bonds to mature October 1, 1887, and payable in Nashville. The amount authorized by the act of March 8, 1867, is \$500,000.—*Chronicle*.

The Council Bluffs and St. Joseph's Road is expected to be completed by the 1st of July next to St. Joseph, which, by rail to Weston and Kansas City and by the Pacific Railroad to St. Louis, will give a short and expeditious route from St. Louis to Omaha.

The annual meeting of the stockholders of the New York and New Haven Railroad Company for the election of a new Board of Directors for the ensuing year, will be held at New Haven on Thursday next, 21st inst. From the report of the Directors, prepared to be submitted to the stockholders, it appears that the income of the company during the past year has been as follows:

From transportation of passengers.....	\$1,622,641 02
From transportation of freight.....	321,311 57
From transportation of mails and express.....	219,656 02
From transportation from other sources.....	54,700 54

Total.....\$2,218,509 15

The expenses during the same period for salaries, fuel, oil, repairs, &c., was.....1,077,427 62

Leaving a balance of.....	\$1,141,081 53
Deducting for taxes.....	145,212 71
Coupon interest.....	64,425 00
Loss by operating Canal Road.....	16,763 72

Total.....\$226,401 43

Leaving as net gain.....	\$914,680 10
Less amount paid for new engines and new depots.....	114,226 28

Leaving for dividends, &c.. \$800,453 82

Two dividends of five per cent. each on the capital stock have been paid during the past year, one July 1st, 1867, and one in January last; and a similar one will be paid on the 1st of July next. The receipts during the past year show an increase over the preceding one of \$150,249, while the transportation expenses, coupon interest, loss on Canal Road and taxes for the same time shows a decrease of \$220,239, thus leaving the sum of \$914,680, as net profits for the year, applicable to dividends and permanent improvements to the road and equipments. The sum of \$69,997 has been expended during the year for new engines and cars; also \$44,227 for the new depots at Norwalk and Stamford. Mr. Bennett, who was removed from the office of Treasurer about a year ago, is said to be a defaulter to the amount of \$88,255, and proceedings have been instituted against him. The company has contracted for 2,600 tons of Bessemer steel rails for the road, and Baker's improved method of warming the cars is to be generally adopted on the line. During the past year, 8,842 passenger trains and 2,081 freight trains have been run over the road; the former conveying 1,963,791 passengers, and the Superintendent states that during the past twelve years no less than 16,314,406 passengers have been transported over the New York and New Haven Railroad, without an accident to any train while on that road that caused the loss of a single life or limb to any passenger transported. The amount paid to the Harlem Railroad Company the past year as their portion of the receipts was \$189,437.

The organization of the South Pacific Railroad Company—the purchasers of the South-west Pacific Railroad of Missouri—was completed to-day at their office in New York. Francis B. Hayes, of Boston, is elected President, Gen. Clinton B. Fisk, of St. Louis, Vice-President, and W. L. Halsey, of New York, Treasurer. The road is to be extended forthwith.

IMPORTANT RAILWAY PROJECT IN MINNESOTA AND IOWA—The Directors of the Sioux City & St. Paul Railway Company have, as we learn from the Sioux City Journal, concluded a contract with the Minnesota Valley Railroad Company, by which the latter agrees to complete the line from Sioux City to the Minnesota State line, within three years from the 1st of July. The Journal, in commenting upon this charge says: "The latter Company is the middle link of the chain of railroads extending from Sioux City to Lake Superior—the first link being the Sioux City and St. Paul, which extends from Sioux City to the State line; then the Minnesota Valley Railroad extends from the Iowa line to St. Paul, the third being the Lake Superior and Minnesota Railroad, extending from St. Paul to Lake Superior. This last road now has a large force at work, and will be completed inside of two years. The M. V. R. R. is now completed about seventy miles out from St. Paul, and by fall will reach Mankato, one hundred and seventy miles from Sioux City. The importance of this transfer, to Sioux City and North-west Iowa, can hardly be over estimated. Nothing of equal benefit, if the road is built in the time named, has ever occurred since the settlement of the country.


A LARGE RAILWAY TUNNEL IN ILLINOIS.—They are cutting a large tunnel through the solid limestone of the Dunleith bluffs, in order to allow the cars to reach the bridge which is now being built across the Mississippi, between Dubuque and Dunleith, for the extension of the Illinois Central Railroad to Dubuque. The size of the tunnel is to be 18 feet high, 20 feet wide, and 830 feet long. About one-fourth part of the work is already done. This work is the largest of the kind ever undertaken in the North-west. The tunnel is excavated on a sharp curve—a radius of only 604 feet—a curve that would appear to be almost fearfully sharp.


At a meeting of the stockholders of the New York and Harlem Railroad Co., held at their office, corner of Twenty-sixth street and Fourth avenue, the following gentlemen were elected Directors for the ensuing year: Cornelius Vanderbilt, William H. Vanderbilt, William C. Wetmore, Abraham B. Baylis, Horace F. Clark, Augustus Schell, James H. Banker, John B. Dutcher, John M. Tobin, William A. Kissam, Oliver Charlick, Joseph Harker, Cornelius Vanderbilt, jr. At a subsequent meeting of the Board of Directors, Cornelius Vanderbilt was elected President, William H. Vanderbilt, Vice-President, Robert J. Niven, Secretary, and Cornelius Vanderbilt, jr., Treasurer.

CENTRAL PACIFIC RAILROAD—The Oroville (California) *Record*, of February 22d, says: "Of what use will the Central Pacific Railroad be when it shall be completed? Is there not miles of it already finished beyond Cisco, and for which the Government has paid forty thousand dollars per mile, that is not, and cannot now be used because it is blocked up with snow? What can energy do if it has no better sense to direct it than to build railroads where snow accumulates to the depth of 50 and 100 feet? If the railroad across the continent was completed to-day the cars could not enter California on the Central Pacific route; neither has there been any day that they could have done so since the commencement of the first severe storm."

The Union Pacific Railway.

From one of the young men connected with the engineers' corps of the Union Pacific Railway, now west of Fort Sanders, we gather the following facts relating to the adopted route: After leaving Fort Sanders it crosses the Big Laramie River, and follows the south valley of that stream some thirty-five miles west, crossing the Little Laramie near its mouth, and then passes over the divide between Big Laramie and Rock creek, following Rock creek table lands to the Medicine Bow. It crosses the stream in latitude 41 degrees 54 minutes, and passes the Rattle Snake Hills at Brown's Pass, some ten miles north of Fort Halleck. It then follows Many's creek, in the North fork of the Platte, crossing the stream some eighteen miles north of the overland stage road. It then strikes due west, passing north of Sage creek and the Bridger's Pass range of mountains, and then makes the divide of the continent in latitude 41 degrees 50 minutes, some thirty miles northwest of Bridger's Pass and sixty miles southeast of the South Pass. It then leans southwest, entering Bitter creek near Big Pond stage station, and following down that stream to Green River, crosses the same two miles north of stage station, and overcoming the summit between Green River and Black's Fork, it enters the valley of Black's Fork and runs up the same to Big Muddy river. It then follows that stream to the east line of the Great Salt Lake Basin, passing some eight miles north of Fort Bridger. It then crosses the line of the basin immediately south of Quaking Asp Hill and runs down Bear river, and, passing Yellow creek, reaches the summit of the Wasatch Mountains at the head of Echo Canon, runs down Echo to Weber river valley, and down Weber valley to Great Salt Lake valley, entering the same thirty five miles north of Salt Lake City. Its course thence is northwest, passing around the north point of the Great Salt Lake, along the south base of Raft river and Goose Creek mountains to Humboldt Range, crossing this range by Reed's Pass to Humboldt Wells, and runs down Humboldt valley to its great bend, passing almost due west to bend of the Wauke, and runs up the valley of the Sierra Nevada mountains, thence west bordering the Donner Lake down Yuba river, reaching the ridge or backbone between the American and Yuba rivers, and thence to Sacramento.—*Council Bluffs Nonpareil.*

 The Sturgis (Mich.) Journal says: "A gang of hands are at work finishing the road-bed, building bridges, culverts, &c., on the Grand Rapids & Indiana Railroad between this place and La Grange. This work was commenced some years ago, and the culverts and bridges built between Lima and La Grange; but the timber having rotted out, will have to be entirely rebuilt. There is but little grading to do, however, and the road between this place and La Grange will soon be ready for the iron."

 Steps are to be immediately taken to complete the North Missouri Railroad to Kansas City and the Iowa State line. William McPherson has just returned from New York, where he effected a loan of \$3,000,000, for the purpose of extending the road. That to the Iowa State line will be completed in August, and to Kansas City, October 1.

North Carolina—Financial Condition.

[From the New York Tribune.]

The following was the condition of the debt of the State of North Carolina on the 30th of October, 1867:

DR.	
State bonds and certificates of indebtedness.	\$12,470,070 50
Outstanding debts thereon	1,500,000 00
Inter'l improvement bonds (issued during the war.....)	1,128,000 00
Outstanding interest thereon	140,000 00
	<hr/> \$15,238,070 50

CR.	
<i>Stocks.</i>	
N. C. R. R. Co.	\$3,000,000 00
Atlantic & N. C. R. R. Co.....	1,266,500 00
Western N. C. R. R. Co	2,268,000 00
Albemarle and Chesapeake Canal Co	350,000 00
Roanoke Navigation Co.....	50,000 00
West'n R. R. Co.	1,600,000 00
Total.....	<hr/> \$8,534,500 00

<i>Bonds.</i>	
City of Raleigh	14,000 00
Raleigh & Gaston R. R. Co.	20,000 00
Wilm't'n, Charlotte, & Rutherford R. R. Co.....	1,000,000 00
Accrued interest thereon	187,500 00
Int. Western R. R. Co.....	225,000 00
Total.....	<hr/> \$1,446,500 00

Total securities..... \$9,981,000 00

Balance against State..... \$5,257,070 50

On the 14th of March last the State Convention passed an ordinance directing that the first General Assembly that shall be convened under the provisions of the Constitution framed by this body be, and the same is hereby directed to make the following provisions for the payment of the interest upon the Public Debt:

Sec. 2. It shall provide for the payment in cash of the interest falling due on and after the 1st day of January, 1869, upon that portion of the bonds of the State which are dated prior to May 20, 1861.

Sec. 3. It shall provide for the payment in cash of the interest falling due on and after the 1st day of July, 1869, upon that portion of the bonds of the State which are dated on and after January 1, 1866.

Sec. 4. It shall provide for funding all such coupons upon the above specified classes of bonds as are now due, or which may become due prior to the time when the payment of interest shall be resumed as above directed. And for such purpose the General Assembly shall authorize the issue of bonds of the State, bearing six per cent. interest, which shall be given at par in exchange for such coupons as are now due or may become due

prior to the time when such resumption of the payment of the interest shall take place.

SEC. 5. This ordinance shall be in force and take effect from and after its passage.

Under the provisions of this ordinance, if confirmed, the present bill of the State would be as follows, compared with the figures above given:

Date	Funded Debt.	Annual Int.
April 8, 1868...	\$14,480,500 00	\$1,168,830 00
Oct. 30, 1867...	15,238,070 50	914,284 23
Increase.....	<hr/> \$1,245,429 50	<hr/> \$254,545 77

Iron and Steel Rails.

The very important question of the relative value of iron and steel rails was brought before the Institute of Civil Engineers, on Tuesday, in an interesting paper, "On the Manufacture and Wear of Rails," by C. P. Sandberg, the object of the communication being to ascertain the best method of manufacturing rails out of common iron, and the time they would last; of disposing of the iron rails when worn out; and whether iron or steel, or a combination of both, was most economical. A series of careful experiments was made with sample rails which were laid down at Camden Town station, by permission of the London and Northwestern Company, and it was ascertained that the five different descriptions of rails were on the average crushed in six years, and worn out in nine years. The conclusion was thus arrived at, that hammering after the first welding heat, for this particular kind of iron, did not improve the endurance of the rails, but that the simplest mode of manufacture had also the material advantage of being the best. These trials at the same time established the fact, that it was not the wear or the diminished sectional area caused by abrasion which produced the unsatisfactory results in the endurance of iron rails, but the lamination caused by imperfect welding. This explained the great difference between the wear of rails made in exactly the same way, the welding in the one case being perfect, whilst in the other it had been very imperfect.

The conclusions which Mr. Sandberg had arrived at were that no rule could be laid down for the manufacture of rails that would apply to every manufacturing district; but that in the case of Welsh iron, to which he had more particularly referred, it had been proved that the best method of manufacturing the rail was that now most commonly practiced—rolling the iron into bars, piling these, and repeated rolling to the finished rail, without hammering. The author assumed that the prejudicial result from hammering was owing to the large amount of sulphur in the Welsh iron. Where the iron contained more phosphorus and less sulphur, as, for instance, in the Cleveland, Belgian and French iron districts, hammering had proved beneficial, and rails had been made direct from puddled bars, without the intermediate process of piling, this being, in fact, the method generally adopted in those places, and being found to answer best. As to the disposal of the worn-out rails, he thought that for railways near the seat of rail manufacture the best way would be to continue to sell the old rails to the rail mills. For other countries, situated like Sweden, for instance, it became important to ascertain whether it would not be more advantageous to re-roll them. On this subject, he entered into precise and detailed cal-

culations, when he concluded that the manufacture might be carried on in that country with advantage, using Swedish Bessemer steel for the head, No. 2 iron for the foot or flange, and old iron rails for the remainder of the pile.

With regard to the relative economy of iron and steel, Mr. Sandberg considered that it was the amount of traffic which must decide which material was the most economical to use for the maintenance of the permanent way. For all railways where ordinary iron rails were worn out in five years, or in a shorter time, solid steel rails (at twice the price of iron) were the most economical. Where ordinary iron rails lasted over five and up to ten years, steel-top rails would be the cheapest; iron rails in these cases being clearly proved to be the most expensive, although the cheapest where they lasted from 15 to 20 years. These calculations were for rails of the Vignoles section. Comparing iron rails of the double-headed section with steel-topped and solid steel rails, also of double-headed section (estimating old chairs to be half the value of new ones), it was found the iron rails were in no instance the cheapest; but, on the contrary, that when iron rails lasted only five years, solid steel rails had the advantage, and where iron rails had a longer duration, then that steel-headed rails were the most economical.

The recent report of Professor Styffe, director of the Stockholm School of Mines, was referred to, and recorded experiments showing that the hardest material had the greatest absolute strength, both before and after permanent set had taken place, but it had the least ductility; on the other hand, a softer material had the greatest tenacity or elongation, the Bessemer material giving the same results as that prepared from the same pig iron by puddling, refining, or the cast steel process. But Mr. Sandberg very properly mentions that the raw material used in both cases was charcoal pig iron of a superior quality compared with that used in England for making Bessemer rails; and he remarked that having watched the development of the Bessemer process in England, as well as on the Continent, it seemed to him that by that process a good and pure raw material had the same advantage over an inferior one as in all other processes, and that a superior product could not be obtained from an inferior raw material by that process any more than by any other. In having mentioned Swedish material as an example, it must not be supposed that it was wished to advocate the use of Swedish iron in this country, but simply to draw attention to the better material, as equally good charcoal iron could be supplied from Canada and India—both English colonies. It might also be remarked, that his endeavor had been to arrive at the truth irrespective of prejudice, and that he had no wish to be deemed an advocate for one kind of rail more than for any other.—*London Mining Journal*, March 7.

The question of extending the Madison division of the Chicago and North-western Road to Winona will be decided upon at the meeting of the directors on the 4th of June. A Winona journal says "the Chicago and North-western Company has fully determined to extend the Winona and St. Peters Road westward to the Minnesota river this year." This determination was expressed a year or more ago, but now it is stated the Company are prosecuting the work with dispatch, with a view to its early completion.

The Trade of Milwaukee.

The tenth annual report of the Milwaukee Chamber of Commerce (for the year 1867) prepared by Wm. J. Langson, Secretary of the Chamber, shows a gratifying increase in various departments of business, and proves that the city is blessed with an extensive and healthy trade.

When the first report of the Chamber of Commerce was made in 1858, that body had less than 100 members, and Milwaukee had only 40,000 inhabitants; now the Chamber numbers about 400 members, and the city 80,000 souls. In that year the produce trade of the city amounted to less than \$6,000,000; in 1867 it reached \$45,000,000, the receipts being divided as follows—17,314,037 bushels of grain; 2,000,000 lbs. of wool; 610,000 lbs. of butter; 170,000 hogs; 20,000 head of cattle; 129,000 hides; 10,000 bbls of pork; 20,536 bales of hops; 100,000,000 feet of manufactured lumber, &c., &c.

The number of steamers and sailing vessels arrived at Milwaukee in 1867, was 4,396, with an aggregate tonnage of 1,713,843—an increase of 772 vessels over the arrivals of 1866.

Milwaukee is justly proud of her facilities for handling grain. Her elevators have an aggregate storage capacity of 4,500,000 bushels. At the terminus of the La Crosse division of the Milwaukee & St. Paul Railway is Elevator A., which can take in 250,000, and ship 450,000 in a day, and can store 1,500,000—the largest and most efficient elevator in the world. Angus, Smith & Co. have two elevators which can ship 250,000 bushels per day, and store 1,150,000; L. J. Higby & Son have one of 500,000 bushels storage capacity, and one of 250,000 bushels; and there are several other smaller elevators, which fill out the enormous total of 5,500,000 bushels, as given above. The rates for handling grain are 2 cents per bushel, with 20 days' storage allowed. Grain is stored in winter—from Nov. 20 to May 1st, at 4 cents per bushels.

An enormous increase is shown in some articles of produce. The total amount of flour made in Milwaukee in 1867, was 546,000 bbls., against 328,760 in 1866. The shipments of wool for 1867 were 2,085,006 pounds—an increase of about half a million pounds over the business of the previous year. In 1867, 159,463 hogs were cut up, against 133,370 in 1866; and the number of cattle slaughtered was 11,691 against 7,044. In 1867, 19 firms made and sold 82,533 bbls. of lager beer and ale, against 68,738 in 1866.

There were no direct shipments of domestic produce to Europe in 1867, but the foreign exports—principally wheat to Canada, amounted to \$2,519,251, against \$1,114,405 in 1866. The receipts of Eastern merchandise in 1867 were 92,924 tons, against 78,277 tons in 1866.

The receipts of wheat at Milwaukee in 1867 were 12,523,454 bushels; shipments 9,598,450; ground by city mills, 2,730,000; in store at close of the year, 546,407.—*Economist*.

RUSSIAN RAILWAYS—Russian Railways are rapidly multiplying. The Ryasan-Morschansk line, a portion of the Moscow-Volga line, has recently been opened. It is one hundred and fifty miles long, and has taken only a year and three months for construction. The Kozlov-Woronesh railway, a link in the long line to be laid between Moscow and the sea of Azof, is expected to be completed in a short time, the Moscow-Odessa railway is progressing so rapidly that it is expected to be finished

this year; and the works between Poti and Tiflis, a line which, after its extension to the Caspian harbor of Baku, will monopolize a considerable portion of the Persian trade, have just begun. The Russian Government has been most liberal in finding or guaranteeing the capital for these railway purposes.

The Bessemer Process in the United States.

In a lengthy article describing the Bessemer Steel Works at Troy, the *Miner's Journal* alludes to some of the difficulties met with, and gives some intimation of the probable location of the manufacture of this steel hereafter:—The greatest drawback, and, in fact, the limiting question, to the pneumatic invention, as applied to the manufacture of steel and iron is the question of purity. Iron must be neutral in quality—containing neither sulphur or phosphorus in appreciable quantities, to be successfully treated by this mode. Even charcoal iron containing either one or the other cannot be made use of in the present state of the metallurgic art; while we do not know and have not heard of any anthracite iron answering the purpose. And it is at present stated by those most interested in the process, and the patents, that anthracite iron cannot be used. Though Europe contains a great variety of the ores of iron, it has been stated, on what is considered good authority, that only one-sixth of the ores of Europe will produce metal of sufficient purity to produce steel by the pneumatic mode, and still fewer ores which can be converted into steel by the older processes, excepting as puddled steel by the puddling process!

The impurity of the fuel adds to the impurity of the metal, and even a pure ore or a pure metal may be seriously deteriorated by the use of an impure fuel. Therefore the use of the cupola with the purest anthracite coal as a fuel, for melting the pig metal must injure the resulting steel more or less. In the air furnace, or reverberatory hearth, however, no impurity is added to the metal, but, on the contrary, it is to some extent improved. We have no doubt that even anthracite iron would be improved by this process of melting, but it can scarcely be expected that the mere melting of the pig metal will remove all the chemical impurities. If this is so, then we have it performed every day in our puddling furnaces, and our puddling mill operations ought to produce "puddled steel" from anthracite iron, which would, or should, be equal to ordinary Bessemer steel from iron melted with anthracite coal in the cupola. That this may and will be accomplished, we cannot doubt, for even now pig metal which cannot be converted into steel by the pneumatic process is elaborated into excellent puddled steel rails by the "puddling" method. But experiments of this nature with the Bessemer converters are terribly expensive and uncertain, and even the most practical and experienced men are apt to be deceived.

We have an unlimited supply of pure ores in this country, and there are innumerable localities where the purest and best of pig metal can be produced; but we fear the most available sites for the production of the Bessemer steel are not to be found in the anthracite regions. In the present state of the art, neutral charcoal iron is a necessity. In this process the cost of fuel is a small object, since a pure metal can be run directly from the charcoal furnace into the converter and be cast into steel ingots, worth from \$100 to \$150 per ton, into common pig worth only \$30 to \$50

per ton! Charcoal furnaces long out of the blast may be profitably revived, since the amount of fuel or labor expended is but little more to produce steel ingots than to produce common pig, while the first cost is only trifling in comparison to the profits.

There are many points in Pennsylvania, and particularly in Virginia, Tennessee and North Carolina, where steel ingots can be made direct from the charcoal furnaces with much profit, but where charcoal pig of the best quality would not pay for manufacture and transportation.

Work on the Indianapolis and Vincennes Railroad is progressing rapidly, and a portion of the Cairo and Vincennes Railroad, lying between Vincennes and Carini, has been put under contract. Seven thousand tons of iron for the road have been purchased, and will be delivered along the route as required.

Boston is discussing plans to enable all the railroads to unite at deep water, to provide ample space for elevators and an extensive union freight depot near the center of business, and to add to the value of all the wharves in the city by opening a Marginal street one hundred feet wide.

The contractor has commenced work on the Cedar Falls and Minnesota Railroad, a short distance from Charles City, with his excavators. The grading between there and Waverly will be completed by the first of June. Track-layers commenced laying the ties and iron on Monday last.

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BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO. OF NO. FORMS. PRICES.	SIZE NO. OF NO. FORMS. PRICES.
1 64 \$37	11 64 \$38
2 96 40	12 96 42
3 144 46	13 144 48
4 192 54	14 192 57
5 256 62	15 252 65
6 320 70	16 320 75
7 400 80	17 400 85
8 500 90	18 480 95
9 600 100	19 600 110
10 720 115	20 700 120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

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J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis, Aug. 2, 1866.]

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2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00 am.....	7,00 pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40 pm.....	4,03 am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30 am.....	10,38 pm
" Paterson.....	2,33 pm.....	6,17 am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00 am.....	5,00 pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

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On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines. State Room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12:10 p. m.

9:00 a. m.—MORNING EXPRESS for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 2:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:40 a. m.; Allentown at 6:00 a. m.; Easton at 7:00 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

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	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

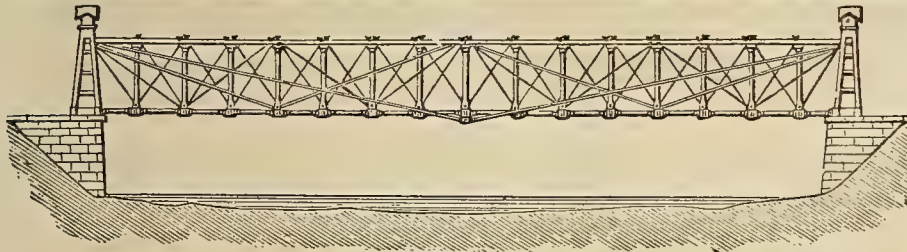
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

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W. P. SHINN, General Freight Agent,
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LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

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Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

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WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

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ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for
Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and en route to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure through tickets and through checks to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART	ARRIVE
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail..	7 00 A. M.	5 25 P. M.
Richmond & Chicago..	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond..	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada..	6 00 P. M.	10 30 A. M.
Hamilton Accommodation..	6 45 A. M.	9 20 A. M.
Richmond & Chicago..	7 00 P. M.	9 20 A. M.
Hamilton Accommodation..	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI..	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR..	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES..	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN..	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL..	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS..	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati..	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express..	7 00 am	10 50 pm
Indianapolis and Cairo Express..	7 30 am	2 30 am
Cairo and St. Louis Express..	2 20 pm	4 08 pm
Springfield, Quincy and St. Joseph Express..	2 20 pm	4 08 pm
Chicago Lightning Express..	7 15 pm	11 30 am
St. Louis Lightning Express, Sunday instead of Saturday night..	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation..	10 10 am	8 35 am
Cornersville and Cambridge City..	4 00 pm	9 15 am
Lawrenceburg..	4 45 pm	2 20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & O. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

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BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, and ready for shipment, with instructions for applying them.

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Boston, Mass.

EDWIN J. HORNER,

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McDANIEL & HORNER.



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CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

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MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1 1/4 to 40 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from 1/2 inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1/4 to 24 inches in diameter, and branches for same. &c., Gas Works Castings, etc., etc.

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STEPHEN MORRIS,

THOS. T. TASKER, JR.,

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Philadelphia, Wilmington & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. Express

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at Washington for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON, } Editors

CINCINNATI:

THURSDAY, MAY 28, 1868.

THE RAILROAD RECORD,

PUBLISHED EVERY THURSDAY MORNING,

BY WRIGHTSON & CO.

OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,

Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 P. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connorsville, Cambridge City and Indianapolis Mail.....	6:00 A. M.	10:10 P. M.
Connorsville, Cambridge City and Indianapolis Express.....	5:10 P. M.	10:30 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Northern Pacific Railroad.

One of the great lessons of the war has been to teach the American People the importance and reality of the unity of the Nation—our oneness—no North, no South, no East, no West—no exclusive interests confined by State line boundaries—but that if one member suffers, the whole body politic is involved in the malady and suffers alike; so likewise, if one portion is blessed with peculiar advantages and with a prosperity unequalled in the history of the world, the whole Nation shares alike the benefit and the glory. Nevertheless, when the vast progress and development of any one portion of the country is obtained through the medium of the general purse, demonstrating the sagacity and wisdom of the outlay, we cannot but advocate, as lovers of our whole land, similar enterprise and expenditure so as to equally and simultaneously develop our whole public property, and benefit alike all portions of the whole land, and as they thus equally share in these results derived through the expenditure of the means belonging to the people, they will be equally prepared to bear their share of the general public burthen.

The great Central Route to the Pacific through the Public Domain is the only one that has received that amount of subsidy that will ensure its successful construction, and we frankly admit that it should be made, yet we contend that it is still of greater national importance, and would display greater statesmanship to construct the roads extending through the Public Lands—the common property of the whole People—extending along our Northern and Southern boundaries, not only as measures of military importance, but as affording the surest basis of a peaceful expansion of our empire, the spread of our commerce, and the increase of our National wealth and resources.

In addition, we may remark that it is important to have a route that is open at all seasons of the year. That this cannot be the case with the Central route is clearly demonstrated by the following very full extracts from California papers:

CALIFORNIA AVALANCHES.

"The recent avalanches in Sierra and Placer counties remind the travelers on the coast of California that our State does not all belong to the clime of the sun. Though snow is never seen in San Francisco, a distance of two degrees brings us into a region where the reign is perpetual. Along a line of three hundred miles the Sierra rises to a height of more than seven thousand feet, with only a few narrow passes below that level; and at that elevation snow lies throughout the year in the ravines on the Northern slopes of the mountains. From the summit of the Monte Diablo a magnificent view of the great range may be obtained, and until late in the summer, from Lassen's Peak, two hundred miles in a North-eastward direction to Mount Whitney, equally distant South eastward in a con-

tinuous line of glittering splendor. The view is more beautiful and comprehensive from the high points of the coast than from any peak in the Sierra.

"The condensation of moisture is greater, as a general rule, on the sides of the highest mountains. The greater the elevation on the Sierra Nevada the greater the rain fall, until we reach about six thousand feet, above which point snow succeeds.

"There are many places in the State where rain is a comparative rarity, though snow falls ten or twelve feet deep in average winters, and forty or fifty in very severe ones. La Porte, Howland Flat, Summit Lake, and all the higher peaks are in this class. At all the towns named the snow is now higher than the one-story houses, and the people go from house to house either through tunnels, or they climb upon staircases from their houses to the top of the snow, and travel on snow-shoes. The snow will lie this year as it did last in the streets of Howland Flat, till the 1st of June, and just back of the town on the hillside, it will lie two months longer. But in the narrow cañons, especially those at a higher elevation, the snow will drift in to be two hundred feet deep, and will lie there from year to year, forming small glaciers, which, though they seem to be of solid ice a few feet from the surface, are constantly moving down hill. The speed of the movement depends on the grade, and in places where the land is nearly level may not exceed one or two feet in the course of a year. The glacier dwells on the gentle slope, the avalanche on the steep one. When the snow accumulates beyond a certain amount on a declivity, it must slide off, and it moves with a tremendous power. The Cisco avalanche, according to the *Sacramento Reporter*, was five or six miles long, and it must have carried with it a body of snow at least ten feet deep and probably half a mile wide, and a weight of more than 5,000,000 tons. If the seven locomotives caught by the snow are not demolished, it must be because the avalanche did not strike them, or its force was exhausted before it reached them.

"We have had three fatal avalanches this week: The first occurred at one o'clock on the morning of the 4th inst., at the Independence Mine on the Downville Butte, carrying away part of the quartz mill, and killing two men. The second occurred at the Keystone Quartz Mine, three miles South of the Sierra Butte, at 10 A. M., on the 5th inst. Part of the mill was carried away and five men were killed. The third, the date of which is not given, occurred at Cisco on the 4th or 5th inst., and killed six men. Thus within one week thirteen men have lost their lives, and the injury to property is certainly not less than \$100,000."

In another issue the same paper, the *Alla California*, says:

"The cars this week only run to Cisco, on account of the immense snow-slides which block the track between that point and the Summit; but a large force is at work shoveling away the banks along the track above, and some time next week the road will be all clear to Coburn's Station, on the other side of the Summit, with comparatively little work to do."

The Oroville (California) *Record*, of Feb. 22d, says:

"Of what use will the Central Pacific Railroad be when it shall be completed? Is there not miles of it already finished beyond Cisco, and for which the Government has paid forty

thousand dollars per mile, that is not, and cannot now be used because it is blocked up with snow? What can energy do if it has no better sense to direct it than to build railroads where snow accumulates to the depth of 50 and 100 feet? If the railroad across the continent was completed to-day the cars could not enter California on the Central Pacific route; neither has there been any day that they could have done so since the commencement of the first severe storm."

Of the temperature on the proposed route of the Southern line *via* Albuquerque we deem it unnecessary at the present time to speak, further than to assert that no fears of interruption by snows have ever been entertained on this route, while we have the testimony of Gen. PALMER, from actual experience of the general mildness of the climate. But of the Northern Route great fears are entertained that it would be useless for at least one-third of the year. This is an error. Wm. B. OGDEN, Esq., of Chicago, President of the North-Western Railway, the great railway of the North-west, and whose road now forms a continuous line with the Central or Omaha route, in a speech to the New York Chamber of Commerce, says:

"Referring to the physical aspect of the route, Mr. Ogden said that the difficulties which have heretofore been thought to exist in passing the Cascade Mountains, between the Columbia river and Puget Sound, have been found, upon strict instrumental surveys made the past season, to almost entirely disappear; the highest point of that route on the Cascade range where the road will cross being but 3,000 feet, and on the Rocky Mountains but about 5,000 feet above tide-water; while on the Union Pacific route, the highest point on the Rocky Mountains exceeds 8,000 feet, and that on the Sierra Nevadas is but little less. When it is remembered that every 300 feet of altitude is equivalent to one degree of latitude in temperature, it would be readily perceived that any apparent disadvantage of temperature from higher latitudes on the Northern route was more than counterbalanced by the lesser altitude, and that although the Union Pacific route was five degrees South, at its crossing the Rocky Mountains, the Northern line crossed the same mountains at a temperature five degrees warmer than its more Southern neighbor. Meteorological records, the result of many years observations at military and trading posts in these regions, sustained these statements."

This testimony, which is abundantly sustained by the official reports in the possession of our Government, as well as the State papers of the British Government, does not need further amplification. There are, however, other points to which we will direct attention, and which will constitute a very great item in the control of a great bulk of the trade with Asia. *First*, the necessary difference of grades as shown by the altitudes of the mountain passes, giving an advantage of at least one-half in favor of the more Northern route in the use of motive power over the difficult portions of the roads.

Second.—In distance there is a most decided advantage in favor of the Northern route

over the Central as will be observed by the following extract from the speech of Mr. OGDEN. He says:

"Another advantage of the Northern Pacific route was found in the greatly diminished distance between the navigable waters of the Lakes and the Pacific Ocean, it being but 1,775 miles from Lake Superior to Puget Sound, while, from Chicago to San Francisco, was 2,448 miles. The distances between the centres of trade and San Francisco, and with Puget Sound, will appear from the following tabular statement:

	Miles.
Chicago to San Francisco.....	2,448
" Puget Sound.....	1,906
Difference.....	542
St. Louis to San Francisco.....	2,345
" Puget Sound.....	1,981
Difference.....	364
Cincinnati to San Francisco.....	2,685
" Puget Sound.....	2,200
Difference.....	485
New York to San Francisco.....	3,417
" Puget Sound.....	2,892
Difference.....	525
Boston to San Francisco.....	3,484
" Puget Sound.....	2,942
Difference.....	542
Baltimore to San Francisco.....	3,219
" Puget Sound.....	2,819
Difference.....	400
Philadelphia to San Francisco.....	3,271
" Puget Sound.....	2,729
Difference.....	542

"Thus, it will be seen that the places east of the longitude of St. Louis, and North of the Ohio river, are from 342 to 542 miles nearer to the Pacific at Puget Sound than at San Francisco—due to the greater directness of the route and the shortening of the degrees of longitude—while Puget Sound is from 700 to 1,000 miles nearer to the various ports of India, Australia, China and Japan than San Francisco. Hence nature has fixed the centre of the future manufacturing industry and the port of entry or departure of our Pacific trade at Puget Sound."

Third.—the peaceful expansion of territory and spread of empire, we insist, is as natural a result of enterprise, and the construction of the two great arteries of commerce and social intercourse upon our Northern and Southern frontiers, as it is for "water to run down hill." This is not our opinion only, but is fully sustained by the views of those who advocate exclusively the interests of Great Britain. *The Albion*, in an article which we publish in full elsewhere, says:

"We chance to know for a fact that a second line of railway across this Continent, on the very borders of Great Britain's widespread possessions, is now almost under contract."

* * * * *

The splendid valleys of the Saskatchewan and Assiniboine, with a temperature even milder than that of Canada West, offer facilities for Agricultural pursuits far greater than any yet enjoyed by the Dominion East of the great Lakes; and yet British capital goes begging at one per cent. in London, while the Americans are paying seven per cent. in gold for the capital to build railways over countries with not half the natural advantages possessed by Western British America! Are British statesmen not aware that the isothermal line which passes through Chi-

cago, and the prairies of Illinois and Wisconsin, turns almost directly northward from the Great Lakes and extends far up into the valleys of the (let us hope *late*) Hudson's Bay territories? Are they not furthermore aware that British America possesses by far the most favorable "pass" to be found across the Rocky Mountains, for a railway route to the Pacific?

* * * * *

"All it now wants is the territory and a liberal aid in the shape of British Capital for its immediate development—at least so far as to afford this new State an outlet to the Pacific—when we may look forward to a power here, worthy of the British name and nation. But if this be not done, and done quickly, we firmly believe that British power and British influence must speedily pass away from the continent, and with it, the golden opportunity of encircling the world by holding perpetually a highway across the Western hemisphere."

On this subject, Mr. OGDEN, in his speech, says:

"It is now well known that North west of Minnesota, the country reaching from the Selkirk settlement to the Rocky Mountains, and from latitude 49° to 54°, as favorable to grain and animal production as any of the North-western States. *That the mean temperature for spring, summer and autumn, observed on the forty-second and forty-third parallels in New York, Michigan and Wisconsin, has been accurately traced through Fort Snelling and the valleys of the Red river and Saskatchewan to latitude 55° on the Pacific coast.*

* * * * *

"The Government which first inaugurates this enterprise with such resources as to exclude a rival work, commands the trade, the colonization, the destiny of the North-west—of a vast interior of this continent, from latitude 44° to 54°—more commanding in situation and resources than all European Russia."

Fourth.—The economy in conducting the military and transportation affairs of the Government (exclusive of the saving on the cost of transportation of merchandise to the people in ordinary traffic) is of itself sufficient to warrant the construction of the roads. We will further extract from the speech of Mr. OGDEN, the necessary data on this point, presuming that what is proven by him in reference to the Northern route is equally applicable to the Southern; indeed we exhibited similar results and testimony from high military authority in favor of its construction in our issue of week before last. Mr. O. says:

"The present cost of Government transportation from St. Louis to Fort Benton, in Montana, is said to be about \$600 per ton. With a railroad from Lake Superior to Fort Benton, about 1,000 miles, if at the high rate of 10 cents per ton per mile, would cost but \$100; and from New York to Lake Superior, the cost by water and rail would not exceed \$15 to \$25 per ton; and of this reduced cost of transportation the Government would retain \$50—it being the half of the cost of transportation from Lake Superior to Montana."

After further statistics from official sources showing the number of Indians residing on the belt of country traversed by the proposed

route to be 130,000, Mr. OGDEN further remarks:

"The relations of the whites to an Indian population of 130,000 souls, offer a territory ample to make ten States of the size of Pennsylvania, has forced upon the General Government the necessity of large expenditures for military posts and troops on the route mentioned in the charter of the Northern Pacific Railroad Company.

"The number of military posts now established on this line is 28; number of companies: infantry, 65; artillery, 6; cavalry, 5. Total, 76. Number of troops, 4,500. Stores required for supplying the above number of troops, 22,995 tons per annum.

"Cost of transporting these stores under the contracts given in the report of the Secretary of War for 1867, and taking the distances specified in the report of the Quartermaster General, dated Nov. 30, 1866, in response to Senate resolution, \$6,158,972.

"General Grant, in his report as Secretary of War *ad interim*, remarks:

"During the last summer and summer before, I caused inspection to be made of the various routes of travel and supply through the territory between the Missouri river and the Pacific coast; the cost of maintaining troops in that section was so enormous, that I desired, if possible, to reduce it. This I have been enabled to do, to some extent, from the information obtained from these inspections; but, for the present, the military establishment between the lines designated must be maintained at a great cost per man. The completion of the railroads to the Pacific will materially reduce this cost, as well as the number of men to be kept there. The completion of those roads will also go far towards a permanent settlement of our Indian difficulties."

"The statement shows that 4,500 troops cost the Government, in that country, about \$1,375 per man per annum for transportation of supplies alone, and that about 23,000 tons of supplies per annum are required to be transported there for their support, and at a cost of over six and a half millions of dollars per annum—a sum which, if the cost to the Government should increase no more, would amount in eight years to all the subsidy asked for in aid of this enterprise."

ENGINEERING INSTRUMENTS—Civil Engineers, who love, above everything else, an instrument on which they can rely upon all occasions, have an interest in knowing where to obtain just what they want. T. F. RANDOLPH, Mathematical Instrument maker, whose advertisement can be found in another column, we have known for twelve or fourteen years, and from personal knowledge of his workmanship, can say, that his instruments in skillful hands can be depended on, and we commend them to our friends without any fears of ever hearing complaints. He has recently greatly increased his facilities for manufacturing and can promptly meet any demand that may be made upon him.

HEAVY COAL TRAIN.—One hundred and forty four-wheeled coal cars, carrying 700 tons of coal, were recently hauled over 85 miles of the Lehigh and Susquehanna Railroad by a single engine.—*Bethlehem Times*, May 1.

Action National Conventions

RELATIVE TO

INTERNAL IMPROVEMENTS, AND

Railroads to the Pacific.

Below we furnish the record of the action of the various National Conventions relative to the duty and obligations of the Government to construct railroads to the Pacific, through the Public Lands. It will be seen that the first direct recognition of the doctrine of Government aid in the construction of these great iron bands of commerce and social intercourse, "thereby binding the union of these States in indissoluble bonds," was passed by the convention of the Democratic Party at Cincinnati, in 1856, and has been endorsed, affirmed and reaffirmed by the conventions of both parties, on several occasions since that time. The Democratic Convention of 1864, omitted it from their platform, and no mention of the subject has been made in the platform of the Republican Party held at Chicago on Wednesday of last week.

National Republican Convention, which met in Baltimore Dec 12, 1831, resolved to meet in Washington May 11, 1832, Wm. Cost Johnson presiding, nominated HENRY CLAY for President, and JOHN SERGENT for Vice President, passed the following resolution:

Resolved, That a uniform system of Internal Improvements, sustained and supported by the General Government, is calculated to secure, in the highest degree, the harmony, the strength and the permanency of the Republic.

The Democratic National Convention, held at Cincinnati, June 2d, 1856, and which nominated JAMES BUCHANAN for President, and JOHN C. BRECKINRIDGE for Vice-President, passed by a vote of 205 to 87, the following resolution:

Resolved, That the Democratic Party recognizes the great importance, in a political and commercial point of view, of a safe and speedy communication through our own territory between the Atlantic and Pacific coasts of the Union, and that it is the duty of the Federal Government to exercise all its constitutional power to the attainment of that object thereby binding the Union of these States in indissoluble bonds, and opening to the rich commerce of Asia an overland transit from the Pacific to the Mississippi river, and the great lakes of the North.—Official proceedings of National Democratic Convention, pages 61 and 62, published by order of the Convention, by the Cincinnati Enquirer.

The Republican National Convention, which met in Philadelphia, June 17th, 1856, and nominated JOHN C. FREMONT for President, and WILLIAM L. DAYTON, for Vice-President, incorporated the following in their platform:

Resolved, That a railroad to the Pacific Ocean by the most central and practicable route, is imperatively demanded by the interests of the whole country, and that the Federal Government ought to render immediate

and efficient aid in its construction; and as an auxiliary thereto, the immediate construction of an emigrant route on the line of the railroad.

The Democratic National Convention, which met at Charleston on the 23d of April, 1860, after "resolving that the Platform adopted by the Democratic party at Cincinnati be affirmed," passed as a part of the minority report of MR. SAMUELS, by a vote of 165 to 138, among others, the following resolution:

Resolved, That one of the necessities of the age, in a military, commercial and postal point of view, is speedy communication between the Atlantic and Pacific States; and the Democratic party pledge such constitutional Government aid as will insure the construction of a railroad to the Pacific coast, at the earliest practical period.

This Convention it will be remembered adjourned, without making a nomination, to Baltimore, where it reassembled on the 18th of June, 1860. No further action was taken by them on this subject.

The National Democratic (Breckinridge) Platform, put forth at Charleston, April 30th, 1860, and at Baltimore, June 23d, 1860, after resolving "That the platform adopted by the Democratic party at Cincinnati is affirmed," among others passed the following explanatory resolutions:

Whereas, One of the greatest necessities of the age, in a political, commercial, postal, and military point of view, is a speedy communication between the Pacific and Atlantic coasts: therefore be it

Resolved, That the National Democratic Party do hereby pledge themselves to use every means in their power to secure the passage of some bill, to the extent of the constitutional authority of Congress, for the construction of a Pacific Railroad from the Mississippi River to the Pacific Ocean, at the earliest practicable moment.

The Republican National Convention, assembled at Chicago, Illinois, on May 16, 1860, nominated ABRAHAM LINCOLN for President and HANNIBAL HAMLIN for Vice-President, incorporated as the 16th resolution of its Platform, the following:

Resolved, That a railroad to the Pacific Ocean is imperatively demanded by the interests of the whole country; that the Federal Government ought to render immediate and efficient aid in its construction; and that as preliminary thereto, a daily overland mail should be promptly established.

The Union National Republican Convention, which met June 7, 1864, at Baltimore, and nominated ABRAHAM LINCOLN for President, and ANDREW JOHNSON for Vice President, adopted as a part of its platform, the following:

Resolved, That we are in favor of the speedy construction of the railroad to the Pacific.

The St. Paul papers announce the early building of a passenger depot in that city for the St. Paul and Superior Railroad.

CINCINNATI

MAYOR'S MESSAGE.

Growth and Prospects.

We recently noticed some of the facts and ideas put forth by Mr. WILSTACH, Mayor of Cincinnati. Since that, we happened to take up some of the annual reports of the Chamber of Commerce in Cincinnati, and by them have the means of *comparison* with years past, which will show the growth of the city, in each Department. It is proposed to get up parks, avenues, and on a large scale, and thus prepare for the breathing and sporting of the generations to come. This is right, and the main question is, which we discussed in some degree in our former article, is the financial means necessary to accomplish those objects. To see at once how far the city has the means for this purpose, without imposing additional burdens, we may, perhaps, learn best by comparing population, commerce and property. These three elements will, together, show the real condition of Cincinnati.

1. *Of Population.*—We give the following table of advance in population for sixty years:

TABLE. Comparing the Growth of Cincinnati and New York, for an equal period, commencing with the first United States Census of each:

CINCINNATI.			NEW YORK.		
Year.	Popul'n.	Ratio.	Year.	Popul'n.	Ratio.
1800	750	.....	1790	33,131	...
1810	2,540	238	1800	60,489	81
1820	9,602	280	1810	96,373	60
1830	24,831	160	1820	123,706	28
1840	46,338	88	1830	202,589	65
1850	115,436	150	1840	312,710	54
1860	162,000	40	1850	515,000	60

The growth of Cincinnati from 1850 to 1860 was less than that of New York from 1840 to 1850; but had the suburbs been taken into view, it would have been equal to it; and it appears from the Census of New York in 1865, that now the *rate* of growth in Cincinnati is fully equal to that of New York. Hence, the growth of New York may be taken as a fair basis of calculation. Let us take the comparison when the cities were of the same size. It is as follows:

CINCINNATI.		NEW YORK.	
In 1830.....	24,831	In 1790.....	33,131
" 1840.....	46,338	" 1800.....	60,489
" 1850.....	115,436	" 1810.....	96,373
" 1860.....	162,000	" 1820.....	123,706

Now, we see that the growth of Cincinnati has been considerably more rapid, than that of New York has been; and there is no reason to suppose it will be any less in future.

Taking the growth of New York, New Orleans, Pittsburg, Cincinnati, Louisville, and St. Louis, for 50 years, and we have this result:

	per ct.
New York incr's'd for 50 years, at rate of	50
New Orleans " " " "	80
Pittsburg " " " "	122
St. Louis " " " "	140
Louisville " " " "	160
Cincinnati " " " "	170

We might find numerous smaller places, sprung up within a few years, which have increased at a more rapid rate than these cities; but it requires many years to show whether the growth of a town arises from natural and permanent causes.

In the comparative growth of the primary cities of the United States, we find that no one has equalled Cincinnati; and it will be remarked, that the ratio of its growth, in the decade from 1840 to 1850, when it had attained the magnitude of the first city of the West, was greater than it was in the previous ten years; for this extraordinary fact, there was, and could be but one cause,—its *industrial development*—which was equal to the advantages it derived from agriculture and commerce.

These statistical results fully sustain Mr. WILSTACH's views, both of the need of, and the means for these great Metropolitan Improvements. It remains then, to see, whether the commerce and resources of the city have increased with equal pace.

2. *Of Commerce.*—The following is a Table of the Value of *Imports* in successive years, which we take from the Reports of the Chamber of Commerce. We take it simply, as one measure of the general volume of commerce.

Value of Imports for the—	
Year ending Sept. 1, 1850	\$12,432,717
" " " 1855.....	\$67,095,741
" " " 1865.....	\$200,000,000

Reducing the last to gold values, it was \$143,000,000. In fifteen years, therefore, the commerce of the city, measured by this standard, increased at the *average annual rate* of 73 per cent.; a most enormous rate, far transcending that of population.

3. <i>Of Means and Revenues.</i> —	
Total receipts of the city for 1852...	\$614,024
" " " 1855.....	\$566,941
" " " 1867.....	\$3,652,674

Fifteen years present an increase of revenue equal to *six-fold*, which is an *annual average rate* of increase equal to 33 per cent, again far transcending the increase of population. It appears then, very evident, that the city has the means if it chooses, not only of getting parks and avenues, but of aiding the Southern Railroad to any reasonable extent. Then if this be the case, why not do it? Some of the elements of the future success of Cincinnati, and what was necessary to be done, were prepared by the writer of this article for the Chamber of Commerce, in 1855. Perhaps we cannot set forth what Cincinnati ought to do for itself, better than by showing what Nature has done for her in some important particulars. Referring to the site of Cincinnati we said, that the Ohio Valley comprehends full 220,000 square miles, and in the very centre of this immense space, containing greater natural resources than any

other equal area on the earth, lies Cincinnati, which is and must forever be, its natural metropolis; the straight line distance from Cincinnati to the principal points in the circumference of that Valley, are as follows:

Cincinnati to Pittsburg, junction of the Alleghany and Monongahela.....	240 miles.
" to Cairo, mouth of the Ohio.....	300 "
" to the sources of the Kanawha.....	250 "
" to the sources of the Tennessee.....	260 "
" to the Great Bend of the Tennessee, near Huntsville, Ala.....	350 "
" to the mouth of the Tennessee.....	280 "
" to the North source of the Wabash.....	170 "
" to the North source of the Miami.....	150 "
" to the sources of the Muskingum.....	180 "

The average distance of the Southern semi-circumference of the Valley is 285 miles from Cincinnati, and of the Northern 170 miles; making a diameter, passing through Cincinnati, of about 455 miles. This will more evidently appear, by taking several actual diameters, and comparing them together.

From the sources of the Miami to the Great Bend of the Tennessee.....	500 miles.
From the sources of the Wabash to the sources of the Kanawha.....	420 "
From Cairo to Pittsburg.....	540 "
From the mouth of the Tennessee to the sources of the Muskingum.....	460 "

These diameters represent an area, within which Cincinnati actually does control the great body of the trade and production; although in some articles of manufactures, and in others of commerce, Pittsburg and Louisville share largely. The commerce of the Miami, of the Wabash, of the Scioto, the Muskingum and the Kanawha almost exclusively belong to Cincinnati; while on the other hand, the trade at particular points, extends far beyond the natural boundary of the Ohio Valley. Thus iron is brought to Cincinnati from North-Western Georgia, while the stoves, which are manufactured from iron, are carried to Missouri, Iowa and Kansas. Sugar is sold from Cincinnati, on the shores of the lakes, and immense amounts of provisions and general produce are carried to the Gulf of Mexico. These facts, geographical and commercial, proves that Cincinnati by its central position is naturally the Metropolis of the Ohio Valley.

Turning then to those resources of this great Valley, which are yet to be developed, we said:

From the summits of the Alleghany and Cumberland mountains, Southward for hundreds of miles, the whole country is underlaid with coal, forming a part of the great central coal basin. In Ohio it extends nearly to the Scioto River. It comprehends Western Virginia, Eastern Kentucky, and east Tennessee. Within easy reach of Cincinnati by railway there must be at least 40,000 square miles of coal-strata, three times the amount possessed by Great Britain. These coal-beds crop out in thousands of places, so as to be convenient for the common fuel of the people, while in numerous places the coal lies in thick strata, intersected by various railways now construct-

ing, and enumerated in the foregoing tables. Over thousands of miles the beds of coal are interstratified with iron, in quantities sufficient to supply the demands of manufactures through countless ages. Already between sixty and seventy furnaces, in South-Eastern Ohio and Eastern Kentucky, are actively and profitably engaged in supplying iron, chiefly for Cincinnati. The demand for this article is so constant and so increasing, that many new furnaces are now erecting on the lines of the new railways. On the other hand, the demand for coal at Cincinnati, to manufacture the raw iron into castings and machinery, is so great, that in the last six or eight years the consumption of that article has increased fourfold, and our citizens are looking forward with great interest to the time, when the railways, by moving coal at all seasons of the year, will make the supply of this important product certain and uniform. Passing further into the Southeast, we find the mountain country of East Tennessee, Southeastern Kentucky, and South-western Virginia, filled with the most valuable mineral productions; some of which are the only ones necessary to perfect the machinery and manufactures of Cincinnati. In that region are not only coal and iron, in inexhaustible quantities, but also copper and zinc; two metals, in modern manufactures, of inestimable value. From the copper mines of East Tennessee, millions of pounds of copper have already been carried to Savannah, (Ga.) and shipped thence to the manufacturers of the East. From these mines to Cincinnati is a much less distance by railway, than to Savannah and Charleston, and less than half the distance from Cincinnati to the mines of Lake Superior, or from the latter to the nearest Eastern manufacturers. Hence, the manufacture of all wares involving copper, will, at Cincinnati, have a double advantage over all others, for the supply of the whole interior of the West and South. She will obtain the raw material cheaper, and she will transport the manufactured article to the consumer cheaper. The same is true of the entire iron manufacture, which in the West can be carried on far cheaper than anywhere on the Atlantic. It is estimated, that when the railway is completed to Knoxville, iron can be obtained at Cincinnati, from East Tennessee, cheaper than from any other quarter. We now bring iron from Tennessee, and even from Georgia. The iron men of East Tennessee make iron at the prime cost of \$10 00 per ton—carry it down the Tennessee, and up the Ohio, and sell it in Cincinnati at a profit. It is estimated that iron may be brought from these furnaces by railway, at \$5 00 per ton, and sold in Cincinnati at \$15 00; thus cheapening the raw material to the manufacturer below any price which can possibly rule in the Atlantic States; and affording Cincinnati, if she should avail herself of these advantages, a substantial monopoly of the iron manufacture of millions of people.

Cincinnati has done nothing to develop herself in the last fifteen years. All that has been done, in the way of public enterprise, was begun before that. It is time a new enterprise was begun. A little public spirit now would give Cincinnati five hundred millions in property and five hundred thousand people.

The Lehigh and Susquehanna coal trains made their first connection with the New Jersey Central Railroad on Monday last. —*Northampton (Easton) Democrat, May 7.*

The Late Express Robbery—Nearly \$30,000 Stolen.

One of the most perfectly planned and coolly perpetuated express robberies that ever occurred, was that mentioned in our dispatches yesterday morning. For "crossmen" to enter an express car, knock down or gag the messenger, hurriedly rifle the safes and then jump the train, is a common occurrence; but for them to first steal a train, and then handle the plunder at their leisure, is something new under the moon. This was the character of the robbery mentioned yesterday. The train left Jeffersonville at 9 o'clock on Friday night, and at about midnight stopped at a wood and water station called Marshfield, eighteen miles South of Seymour. At this halting place a party of at least five, and perhaps as many as seven men, clustered around the engine while the engineer was on the ground oiling it. With but few words, these robbers, thus suddenly pouncing upon defenseless men, forced the engineer to leave the vicinity, and knocked the fireman off the engine. While this was being done, a couple of them cut the train, uncoupling it between the express and passenger cars. The express messenger, comprehending the situation, immediately locked himself in his car as his only course. In a minute or two more, the engine with a crew of robbers, was dragging the baggage and express cars rapidly in the direction of Seymour, eighteen miles North, leaving the unsuspecting passengers snoozing in their cars at Marshfield. Before they had proceeded far with the stolen train, the desperadoes had broken into the express car, cruelly beaten the messenger, Mr. F. W. Haskins, secured his keys, thrown him, regardless of his life or death, out of the car, broken open the through safe containing the Southern run, unlocked the way safe, and secured about \$30,000 in treasury notes and bonds. A few hours after midnight the engine and two cars were found standing on the track, uninjured, about a mile South of Seymour.—*Cin. Com. of May 25.*

This equals the stories of Rob Roy and Jack Sheppard, and for audacity of conception and successful execution is not surpassed in the annals of crime. The town of Seymour is noted as the home of an organized band of desperadoes, who make but little secret of their deeds, as they have no fears of conviction, and the extent of whose depredations are only measured by the needs of themselves and accomplices. The boldness and frequency of their personal and wholesale robberies, if not interfered with either by the strong arm of law or some other power must soon have a serious influence on the business of the railroads which have the misfortune to pass through such a miserable community as that which now shelters and protects that den of thieves—Seymour.

The Cheyenne people, who accused the Union Pacific Railroad of an intent to "throw off" on that railroad town, cutting off its railroad patronage and destroying its property, are relieved to learn the intention of the Union Pacific Railroad to proceed with the construction of an extensive machine shop and engine house there immediately. The permanent location of the Eastern terminus of the Denver & Pacific Railroad at Cheyenne is made and the work begun.

The Future of the North-West.

The Cable telegraph informs us that "the entire domain belonging to the Hudson's Bay Company is to be ceded to the Crown."

We know not on what authority this declaration is made, but had the message read *has been*, instead of *is to be*, we should have placed more confidence in the announcement. Hoping, however, that the final consummation of an important transaction is herein foreshadowed, we proceed to consider some of the advantages that would naturally accrue to the British national interests by the cancellation of this ancient, but unjust charter. That a private trading company should have so long governed more than a third of the territory of North America, is one of the most remarkable circumstances of the age, and tends to illustrate the power and influence of the British commercial mind. The great Asiatic, or East Indian monopoly, was forced to give way only when the company had become more powerful and influential than any but the leading, or greater powers of Europe. It is true the dense population of India tended to render this ancient governing company of vastly greater importance than any other known to our generation, yet the commanding position, native fertility, and progressive tendencies of the vast possessions held by the great trading company of America, renders its extinction of vastly greater importance to this western world than that of its great prototype. That the cancellation of this old English charter properly belonged to the Imperial, and not to the Colonial, Government, we have always asserted;—and we believe the justice of our views must ultimately prevail at Westminster—but that such cancellation is to take the form of "cession of the domain to the Crown," only goes to show how jealously individual rights are guarded throughout the British Empire.

Turning, however, to the practical side of the question, we think the British statesmen of to-day cannot fail to have already perceived the actual necessity of immediate action. The Imperial Government has already favored the erection of a new and promising Dominion out of the scattered colonies on this continent, which Dominion already begins to assume a national dignity and importance. Unlike the original thirteen colonies, these united provinces of North America already possess all the modern improvements and appliances of this eminently fertile and practical age. The steamboat, the railway, the telegraph, as well as the thousand and one appliances of this intellectually active, if not indeed restless, generation, are not new to the colonies, but are there in full operation and development. Their enterprising Republican neighbor is pushing forward across the continent with an energy and rapidity marvelous to behold, and ere long with railways stretching from the Atlantic, the hitherto comparatively untraversed western ocean will become the busy and bustling highway of commerce. In fact it is already confidently given out that the modern locomotive which has recently reached the top of the Rocky Mountain Ranges—will, ere the close of three short years, actually traverse the continent from sea to sea. And when such facts are staring us in the face, can England afford to stand still? Can the rising Dominion, which under her protection and fostering care is destined to occupy and develop the northern half of this North American Continent, if but judiciously managed afford to stand idly by and witness, not only this great central

channel of communication with the Pacific, with the Sandwich Islands, with China, with Japan, with British India, and British Australia completed and actually conveying British passengers and British goods to their own far-off but rapidly developing dominions, while they have themselves a route, the advantages of which far surpass that of their enterprising neighbors?

And more than this.

We chance to know for a fact that a second line of railway across the continent, *on the very borders of Great Britain's wide spread possessions*, is now almost under contract. This line has been located, the estimates made, and the promoters are now at Washington negotiating for the usual large land grant from the Government, in order that the road may be put at once under contract. Are not British statesmen aware of these facts? If not, it is high time that they cease their religious wranglings over contracted and depopulated Ireland, and look to the future security and safety of half this growing American Continent. The splendid valleys of the Saskatchewan and Assiniboine, with a temperature even milder than that of Canada West, offer facilities for Agricultural pursuits far greater than any yet enjoyed by the Dominion east of the great Lakes; and yet British capital goes begging at one per cent. in London, while the Americans are paying seven per cent. in gold for the capital to build railways over countries with not half the natural advantages possessed by Western British America! Are British statesmen not aware that the isothermal line which passes through Chicago, and the prairies of Illinois and Wisconsin, turns almost directly northward from the Great Lakes and extends far up into the fertile valleys of the (let us hope late) Hudson's Bay territories? Are they not furthermore aware that British America possesses by far the most favorable "pass" to be found across the Rocky Mountains, for a railway route to the Pacific?


We believe that it is not ignorance but *apathy* that holds this great work back, and with it the great North-west in abeyance. But there is one thing of which both British and British American statesmen may be sure, and that is the future dominion on this Continent depends almost entirely upon the prompt and rapid development of these natural advantages; and that the perpetuity of British power, and British constitutional government, depends wholly upon an early appreciation of these patent truths, and a compliance with these imperative requirements. The Dominion north of us has an admirable position, and a start in the world never before vouchsafed to an infant nation, but to assume that it could hold its own with its energetic and enterprising neighbor, hemmed in as it at present is, is to take up a position that is entirely untenable and fallacious. The Dominion possesses the organization, and energy, and the enterprises necessary to prompt action. All it now wants is the territory and a liberal aid in the shape of British Capital for its immediate development—at least so far as to afford this new State an outlet to the Pacific—when we may look forward to a power here, worthy of the British name and nation. But if this be not done, and done quickly, we firmly believe that British power and British influence must speedily pass away from this continent, and with it, the golden opportunity of encircling the world by holding perpetually a highway across this Western hemisphere *Mihi cura futuri*—*The Albion*.

Railways in the East.

But will progress in shortening time between England and India stop at the construction of only eighty more miles of railway? It would be out of reason to suppose that such will be the fact. It may therefore be taken for granted that continuation of the whole 800 miles of Euphrates Valley line will be accomplished somehow or other. Whenever that time comes,—and every day is accelerating its advent,—the gain will be at least two days, possibly even a little more on the homeward journey. Then the postal communication between the two empires will not be as it is now, forty-eight times a year; it will not be the two and fifty, so long proposed, so long and miserably resisted by Post-office narrow sight and want of appreciation of Imperial grandeur and importance.—No! It requires no great foresight or forereading of events to feel conviction that the service will be daily, and that dispatch will succeed dispatch on each of the working days of the year, as well as from west to east as from east to westward. Even now, the postal service of England with the east is the grandest combined land and ocean communication of the world. No other maritime service approaches it. It is five times as great as that of the Cunard Company. It is more than double that of the two great routes of the Royal West India Mail Company. Notwithstanding its ramifications extend thousands of miles, the component parts of it fit in so harmoniously, and work together in such complete and accurate accordance, the one with the other, that whether we take the outward journeys with their divergent fragments, or the homeward journeys, continuously aggregating and increasing as they approach completion—the mail arrives almost with the rarely-failing fidelity of clockwork—punctuality the rule, absence of it the rare exception. But shall we always be satisfied, even when we have achieved communication by railway from the Mediterranean to the head of the Persian Gulf, and thence by water to English India? There can be but one answer to the question—It would be contrary to all human progress if we were to be so. Only in the summer of the present year, France and England were each honored with a visit from the Sultan, and it is said there was nothing which struck His Majesty during his short residence in Western Europe as of more importance to the well-being of a State than the construction of railways. It is, therefore, not surprising that he has already given the subject attention for his country, and that concessions have been granted for several important lines. Even now the break which separates the railways that extend continuously from Calais to Basiach, on the Danube, 419 miles to the south-east of Vienna (accomplished by the express train in seventeen hours,) are only separated from Rustuck by less than 300 miles, and, as the railway—138 miles long—from Rustuck to Varna is open, there is in fact only the Basiach-Rustuck break in a complete railway communication from Calais to the Black Sea. Before ten years from this time, not only will this gap be filled up, but the City of the Golden Horn will be equally put into connection with the whole of the European system of railways. The Queen's messenger and the mails now go from London to Constantinople, *via* Marseilles, in about eleven days. When the Brindisi route is established, the time will be diminished some three days, and on the completion of the railways to Constantinople, the interval in

time between it and London will not exceed five days. So far with regard to railway journey, the accomplishment of which, within ten years, is certain. Nothing, except the coming of chaos, can prevent it. But when the railway has arrived as far east as the City of the Golden Crescent, will it stop and end there? In one sense it must, unless indeed some of the engineers who are now competing for the honor of tunnelling under, or placing tubes upon the bed of the ocean between Dover and Calais, shall suggest a scheme for tunnelling under the Hellsport, and their proposals shall be accepted. At all events, even if a railway were to extend a hundred or so of miles eastward in Asia Minor, one will certainly be made for that distance, and opened for traffic by the time the line, coming from the far West to its terminus at Constantinople, shall be completed. It will go through a country rich and productive, as well as covered by a prosperous and money-making population. Fact and reality ended, we approach a "dream of the future." A dream not new to us, for we have often dreamt of it, and occasionally discussed it with others, whom the reader will probably feel disposed to consider as dreamy as ourselves. And yet the time will come—possibly even a few of those now grown to manhood may see its fulfillment before they die; the Long Railway will first traverse Turkey in Asia, anciently the seat of the Kingdom of Troy and Lydia, the birth-land, possibly of HOMER and HERODOTUS, certainly of THALES, PYTHAGORAS, and others hardly less distinguished. From classic land it will cross to Persia, and from Persia it will pass to Afghanistan, the grandest in physical aspect, and perhaps for 600 miles, the most difficult country in the whole world for railway construction. When it has gone beyond those kingdoms, it will be on British soil. There it will attach itself to the then Great Indian Railway, the unbroken course of which will be from the Persian Gulf to the mouth of the Ganges. When the now far distant day of accomplishment has arrived, how will Calcutta and London be to one another in point of postal distance? Possibly fifteen; certainly not more than seventeen days asunder.—*Rambles on Railways, by Sir Cusack Roney.*

EXTENSION OF THE CUMBERLAND VALLEY RAILROAD.—The managers of the Cumberland Valley Railroad are busily engaged purchasing the right of way from this place, the present terminus of their road, to Williamsport, in this county. We are informed that they have been uniformly successful in securing rights of way. This extension we consider a very necessary one—one which will not only be a great source of revenue to the company, but will be of incalculable advantage to the citizens of that portion of the country through which it passes, as well as to the adjacent counties of Virginia.—*Hagerstown Free Press.*

 **The Year-Book of Canada for 1868** affords a comprehensive summary of the railways in the Dominion of Canada. It shows that there are 2,735 miles now open, including sidings, the aggregate cost being £32,500,000, or something under an average of £12,000 per mile. The net revenue of these lines for the year 1867 was a trifle over £1,000,000 sterling, exclusive, however, of leases, preference charges, interest on bonds, &c., &c., equivalent, therefore, to about 3 per cent income upon the outlay.

National Subsidies—The Kansas Pacific Railroad.

The publication of a long list of subsidies asked for railways and steamship lines has evoked from a number of newspapers a bitter denunciation of all applications for government assistance. Wise and foolish projects are confounded without discrimination, and Congress is asked to summarily condemn measures which would undoubtedly advance the national welfare because aid has been requested for visionary and unnecessary schemes. The mere statement of the character of this sudden outbreak is sufficient to demonstrate its absurdity. The fate of each proposition should depend upon its merits. Even if nine out of ten of the applicants deserve to be turned away empty-handed from the treasury, just and conclusive arguments in favor of the remaining project deserve consideration. Especially should this rule be applied to great trunk lines between the Missouri river and the Pacific Ocean. They are not specially designed for the benefit of any one section of the country, and no one section should be allowed to reap undue advantages from their construction. It is easy to foresee that a single line will not be sufficient to satisfy the many demands of the Far West and of the various latitudes of the States East of the Mississippi. The time cannot be far distant when at least Northern, Central and Southern through routes between the Atlantic and Pacific will be established, and at this particular juncture many forcible arguments are presented in favor of immediate assistance to the Union Pacific, Eastern Division, or Kansas road, which will practically become a Southern or South-western line, extending through New Mexico and Arizona to Southern California.

More than four hundred miles of the road are already built, and it is estimated that the loan of the Government credit to the extent of forty millions of dollars would insure its completion to the Pacific. Philadelphia, Pittsburgh, Cincinnati, St. Louis, and all the cities lying in similar or more Southern latitudes, together with the States and districts of which these cities form the natural commercial centres, have a deep interest in its construction. The Cincinnati Chamber of Commerce has recently adopted a report, resolutions and memorial, in which the claims of this line for assistance are forcibly described. On purely military and economical grounds, in saving the vast sums hitherto squandered for transportation and in conducting fruitless campaigns against the Indians, it is warmly recommended by the most experienced and sagacious officers who have served on the Plains. It passes over nearly its entire extent through a fertile country, from a large portion of which inexhaustible crops of the cereals can be obtained by the aid of irrigation, while it is adjacent to the finest pastoral regions in the world. It traverses a temperate latitude, crossing the mountains by passes of a comparatively low altitude, and thus secures uninterrupted communications at all seasons of the year, being "free alike from the malaria and fevers of the tropics, and the dangers of deep snows and avalanches of less favored routes. It will open up for settlement and development what has long been regarded as the richest mineral region of the Western portion of the Continent. The savage tribes who have hitherto jealously guarded the vast deposits of the precious metals in New Mexico and Arizona,

will either be destroyed by the irresistible march of advancing civilization or compelled to submit to wholesome restraint. It will also afford an important avenue to the rich mines and semi-tropical productions of Northern and Central Mexico, and thus extend our commercial intercourse with that country through a channel not subject to future interruptions, and which cannot be affected by foreign competition. The important bearing of parallels of latitude upon the selection of appropriate Pacific railway routes has been steadily kept in view at all stages of the progress of these great national enterprises, and at this era the proposed Kansas Pacific road will advance a greater number and variety of important interests than any other line hitherto projected. It will be useful not only to Kansas, Missouri, Illinois, Indiana, Kentucky, Ohio, Maryland and Pennsylvania, but to all the States lying further South; for, in the language of the Cincinnati memorial, it will furnish "the best means of connection at the base of the Rocky Mountains, East of the Rio Grande, with the railroads now pushing out across the great plains from Arkansas and Texas, thereby placing Memphis and New Orleans as near as St. Louis to San Francisco and San Diego, and affording to all our Southern States the advantages of communication with the Pacific without the expense or delay of a separate trunk line." A measure recommended by so many economical, military and commercial considerations, should not be hastily condemned on account of the abundance of schemes devised by grasping speculators.—*Railroad and Mining Register.*

MAYSVILLE AND LEXINGTON RAILROAD.—A meeting of the stockholders of the Maysville and Lexington Railroad—Northern Division—was held in Maysville, Ky., on the 25th of April, at which the following gentlemen were elected directors for the ensuing year: Hiram T. Pearce, Andrew M. January, James H. Hall, Lewis H. Long, James Barbour, Abner Hord, Alex. K. Marshall. At a subsequent meeting of the directors, Hiram T. Pearce was chosen President, and Henry Pelham, Clerk. Dr. Wm. H. McGranaghan was then elected a member of the Board, in the place of Mr. Pearce, made President.

Thomas J. Glenn, of Nicholas County, was appointed engineer of the road, and is charged with the immediate duty of making a thorough survey of the route from Maysville to Paris, and of estimating the expense of construction.

MISSISSIPPI CENTRAL RAILWAY.—The Louisville and Nashville Railway Company have failed to secure a consolidation with the above named road, as the latter has been leased to the McCombs parties for sixteen years. During the sixteen years they will control the earnings, pay all operating expenses and repairs, and appropriate \$8,000 per annum to keep up the organization of the company, provide a sinking fund to meet that portion of the debt due the State of Tennessee, which matures after the expiration of their lease, and pay all debts that mature during the lease. They desire a lien on the road after their lease expires, to secure them payment for any excess in value of any permanent improvements they put on the road, but will put none on except with the approval of the Board of Directors. They further agree to build the road from Jackson, Tennessee, to Paducah, Kentucky, and operate the whole as one.

EFFECT OF GRADES ON RAILWAY EXPENSES.—The relative cost of working high and moderate grades is shown by the following:

Mr H. I. Lombart, when he was Superintendent of the Pennsylvania Railway, stated that the ordinary load of a 27-ton engine on grades of 21 feet to the mile was 200 tons—including load and cars, 400 tons.

On the 52 8-10 grades undulating, with 30-ton engines the load is 136 tons—including cars, 272 tons.

On the 95 feet grades the load is 96 tons including cars, only 192 tons.

I. D. Steele, Esq., an engineer of the Reading Road, made an exhaustive report on the effect of grades on the cost of transporting coal, and (said the president of the company) "his long connection with the company and his great experience entitle his deductions to entire confidence." From his elaborate table we find the average load of a train taken at 437-2 tons upon a level road, and that to carry 1,000,000 requires 2,287 trains at a cost of $\frac{1}{2}$ of a cent per ton per mile (in cheap times.)

On a grade of 55 feet to the mile the load would be but 119-1 tons, and the same number of trains (2,287) would carry only 272,411 tons, which would cost nearly $1\frac{1}{2}$ cents per ton per mile.

It will be observed that his results as to the capacity of trains on the relative grades substantially agree with Mr. Lombart. He says further: "If we compare two roads, each 100 miles long, the one having grades of 25 feet to the mile, and the other level, and the demands for transportation on each to amount to 2,000,000 of tons per annum, the difference in favor of the level road is \$600,000, or the interest on \$10,000,000.

FIRE DEFIED.—At different periods within the last few months a series of experiments have been instituted by Mr. Richard M. Hoe, for the purpose of finding a cheap substitute for the iron beams and brick now commonly used in fire-proof buildings. The last experiment was made on Friday, May 15, at which many persons were present, including members of numerous insurance companies and officers of the Fire Department. The trial was made in a vacant lot on Sheriff street, New York, adjoining the works of Messrs. R. Hoe & Co., where a specimen floor has been erected. This floor was ten feet by ten, and was placed upon upright posts of about four feet in height, beneath which, precisely at 9 o'clock, a large fire was kindled. Several men were kept constantly engaged in feeding the flames, and a degree of heat was attained which, in the language of Mr. Hoe, was "hot enough to burn up the whole of New York." This was kept up to 12 o'clock—three hours—when there being no indications that the floor would be destroyed, the fire was allowed to die out, and the men were permitted to build one on the top. This being done, the flame was rekindled below. These two fires were now constantly supplied, and the burning was continued until 4 o'clock, when all present were satisfied of the successful issue of the experiment. The floor was then taken to pieces and its construction explained. It is about the usual thickness of floors separating different stories, the lower surface being made of thin, plain sheets of iron, No. 21 wire-gauge, which are nailed to the beams. Spread out upon this sheet-iron ceiling was poured a layer of plaster of Paris to the depth of $1\frac{1}{4}$ inches, on the top of the cross-beams were nailed more sheets of iron, and upon these a layer of Plaster of Paris one quarter of an inch in thickness. Above the whole were

fastened the planks, forming the upper surface of the floor. On examination it was shown that the beams were not at all injured, and this, too, after an intense flame had been burning steadily above and below for more than four hours. The planks on the upper parthad, of course, been burnt, but that detracts but little from the worth of the invention. The cost of a floor of the size described above is \$30 10; the cost of a building made in this way will be about one-half as much as the brick and iron-buildings. Fire-proof paints protect only the exterior of a house, or the part least likely to catch fire; while on the other hand, a building constructed after the Hoe plan will be thoroughly free from danger.—*Artisan.*

The receipts of the Western Union Railroad Company for the week ending May 21 :

	1868.	1867.	Inc.	Dec.
Freight	\$10,530 21	\$ 7,681 12	\$2,849 09	.....
Passengers	3,349 95	2,856 00	393 95	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$14,505 16	\$11,232 12	\$3,273 04	.....

Receipts from January 1 to May 21 :

1868.....	\$215,061 21
1867.....	179,361 85
Increase.....	\$35,699 36

T. F. Randolph,

MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

SURVEYOR'S COMPASSES, TRANSITS, LEVELS,
DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

Dec. '67.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT.

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

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All orders addressed to us will receive prompt attention.

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Bulletin Boards,

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COUPON AND LOCAL TICKETS,

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J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati.
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati.
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton.
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis, Ind.
Aug. 2, 1886.

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It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

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A locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

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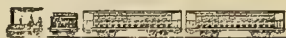
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.00am.....	7.00pm
" Dayton.....	8.20 ".....	9.15 "
Arrive West Salem.....	1.40pm.....	4.03am
" Leavittsburg.....	4.40 ".....	7.30 "
" Meadville.....	7.05 ".....	10.15 "
" Susquehanna.....	7.30am.....	10.38pm
" Paterson.....	2.33pm.....	6.17am
" New York.....	3.15 ".....	7.00 "
" Boston.....	6.00am.....	5.00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

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A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

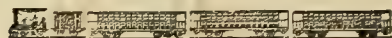
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 18:00 p.m. On Sundays, one Express Train at 8:40 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front Ya East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12:15 p.m.

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

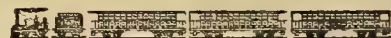
2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

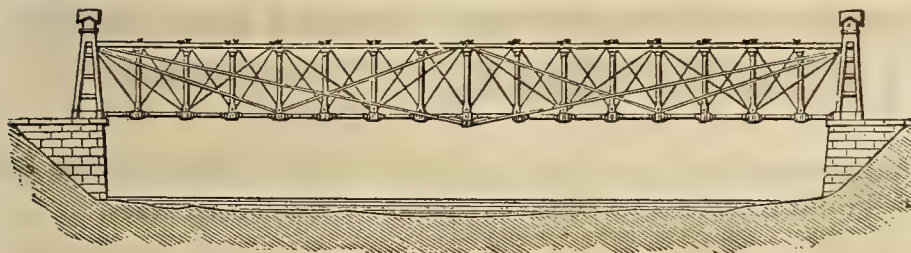
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

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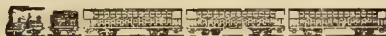
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At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore on the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

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Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

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	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 01 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

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5 THROUGH TRAINS DAILY,

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	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	9 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
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Lawrenceburg Accommodation.....10.10 am 8.35 am

Connersville and Cambridge City.....4.00 pm 9.15 am

Lawrenceburg.....4.45 pm 2.20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

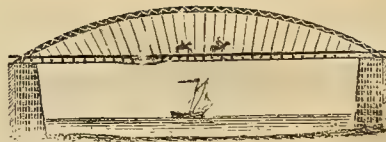
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4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at 11.00 for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, { Editors
T. WRIGHTSON.

CINCINNATI:
THURSDAY, JUNE 4, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
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ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	2:40 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond and Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:30 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:30 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:30 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:25 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:05 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Northern Pacific Railroad.

In the last number of the RECORD, we made several extracts from the speeches of Mr. Ogden, and articles from various documents, exhibiting the main features of the route of the Northern Pacific Railroad. We shall continue this exhibition by further extracts from the Report of the Chamber of Commerce of the State of New York. First, we may observe, that it is now fully understood, that in a vast country, extending over a great continent, the only way to develop the resources of the interior, and bring its products to the great markets is, by a system of railroads, which like radii from a centre diverge from and converge to, the great tide-water centres. Hence, as we recently stated, England has guaranteed no less than five hundred millions of dollars to the railroads of India; because the interior of India is a most excellent cotton field, and hence, railroads through the interior of India, enables Great Britain to supply her cotton machinery without dependence upon foreign powers. The railroads will pay back this vast fund, and in reality, the Government advances nothing but its credit. This is a wise policy. For a century, since the British Government first began to hold possessions in India, the great cotton field of India has lain comparatively idle. When our war broke out and the cotton crop of America was cut off from Europe, England was compelled to look to her own resources, and in India she found an ample cotton crop if only it could be brought to market; and here the railroad stepped in to do what is its best and greatest office, to *develop* and carry to market the crops of the great interior of a continent. Such is our own country. That part of our own country which lies East of the Alleghenies, is but a narrow strip compared with the interior, and so is the coast of the Pacific West of the Nevadas. It is the interior, of which the Mississippi is one great axis, we must develop by a system of railroads. East of the Mississippi this is pretty well done; but West, scarcely at all. People have been afraid of what they supposed impassable mountains and barren plains; but, the mountains are *not* impassable, and the plains are *not* barren; and almost the whole difficulty set up in the way of the Pacific Railroad, is a mere bugbear. The Union Pacific Railroad is *already six hundred miles West of Omaha!* Nothing has stopped and nothing will. But more than one axial line is necessary through that country. It will be hundreds of miles South of the Union Pacific to the Southern Pacific, and it will be hundreds of miles North of the Union Pacific to where the Northern Pacific *ought* to be. It is impossible, that the immense business of the coming future can be done on one line; and, if this be admitted, and the Government has aided the Central line, why should it not aid

the Northern and Southern lines? These three will probably be enough, with the aid of the collateral lines, which will assuredly arise. The necessity of the Northern Pacific Road, we see set forth by Governor MARSHALL, of Minnesota, in such strong terms, that we cannot forbear copying it. It will give the reader something to ponder upon.

There is to-day, west and northwest of Lake Michigan, *two and a half millions of population, and five hundred millions of dollars of property.* That population, with the wealth which it has created, has risen almost wholly within a period of twenty-five years. I have witnessed all that growth—more than nine-tenths of it since I grew to manhood, and I am yet a young man. My residence on the Upper Mississippi, within the present limits of Minnesota, dates from 1847, a period of 21 years. Within that period I have seen the community emerge from the rude lumber-camps of the St. Croix to the position of a leading grain producing State. I have seen its population rise from one thousand to four hundred thousand, now exporting ten million bushels of wheat per annum, a product, in proportion to the population, unparalleled elsewhere. This production, too, is with *less than two per cent.* of the area of our State under cultivation. The next decade will give Minnesota one million population.

Your Erie Canal, your railroads, the navigation of the lakes and Upper Mississippi, have produced this great and rapid development.

Now, there lies beyond the present limit of population in the northwest a region vastly larger in extent—embracing ten degrees of latitude, from 44° to 54°, and twenty degrees of longitude, from 92° to 112°—and richer in natural wealth than the country north and west of Lake Michigan, and has these two and a half millions of people.

How is this far midland region to be peopled and developed? Your canals and your railroads do not reach it. It lies beyond the great lakes and the navigable water of the Upper Mississippi. I answer, that the great enterprise which you are to-day considering, is the agency that is needed, and it alone, to give population and development to this great northern interior region. Without the beneficent agency of this great enterprise, (or a kindred one on British soil,) this region is to remain a solitude, unproductive and uninhabited by civilized man.

The trade, the commerce, of these millions yet to be, will as surely flow to this great commercial centre, as do now flow here the trade and commerce of the already developed Northwest.

Mr. Marshall, after touching on the temperature and climate, to which we referred in our last article, adverted to the great system of water-courses, which lie immediately north of our line, and which will, with all their products be tributary to any great line of railroad through that country. He said:

From the northeast boundary of Minnesota, this whole district of British America is threaded in all directions by the navigable water lines that converge to Lake Winnipeg.

English and American explorations have also established, in favor of this district, that its average elevation above the sea is far less than in corresponding American territory; that the Rocky Mountains are diminished in width, while the passes are not difficult; that

the supply of rain is more abundant than farther south; while, owing to the Pacific winds through the mountain gorges and the reduced altitude, the climate is no material obstacle to civilized occupation.

I might enlarge upon the relations of Minnesota, Montana and the Pacific States to this contiguous territory. At St. Paul a commerce now exists with the Red River settlements with our northwestern frontier, which exceeds \$3,000,000 per annum. The route of the Northern Pacific Railroad commands this trade, and the opening of the road would vastly increase it.

English statesmen may suddenly determine to push a railway through British territory from Lake Superior to Vancouver's Island, as the sure remedy for the dangers that threaten their dominion on the North Pacific. It is in the power of Congress to forestall the English Government, and to occupy the ground so important in every sense, commercial and political, to this country.

The Government which first inaugurates this enterprise with such resources as to exclude a rival work, commands the trade, the colonization, the destiny of the North-west—of a vast interior of this continent, from latitude 44° to 54°—*more commanding in situation and resources than all European Russia.*

But I have occupied your time and attention quite as long as I ought. I seek to make known to the men of the East the great and inviting field that lies open to their enterprise and capital. I ask you, representing the commercial interests of this great metropolis, to urge upon Congress national action in behalf of the enterprise that is to develop the great Northwest, and that will bring the tribute of the trade of that region to your feet.

If we delay making the Northern Pacific Railroad much longer, it seems to us, that British statesmen will find the field too tempting to resist, and that British capital will before long make a great railroad in that direction. If England was willing to guarantee five hundred millions to make the India railroads, would she not be willing to guarantee fifty millions (one-tenth) to make a great highroad to the Pacific? An examination of the map will show that England holds title to nearly half this continent, and that she has three millions of people in it. This is an empire worth holding. For the working people of England it is a far better empire, than that of India. India has been the great field, in which the gentry of England have fortunes; but, British America is the field for its working men, who do not come to the United States. If we neglect to make the Northern Pacific at an early day, we may be very sure that Great Britain will not. From the Great Lakes to the Pacific there will be a Pacific Railroad, and it ought to be made promptly by the United States.

✱ A locomotive of the Erie Railroad broke through the trestle work of the dock at Pavana Ferry yesterday, and was submerged in the river, drowning the engineer and fireman. The engine was backed upon the dock, contrary to the regulations. The span on which the engine and tender stood was 50 feet in length, and the shoulder on the sill on which the stringer rested was only 4 inches in width.—*N. Y. Commercial Advertiser.*

AMERICO-AFRICANS.

HIGH-BORN DESTINY.

Railroads and Steamships Special Instrumentalities to Subdue and Convert the World.

Africa Benighted—How Redeemed.

GOD'S FINGER POINTS THE WAY.

At the present we universally condemn the original actors in the tragic scenes that first planted African slavery in the American Colonies. Vile and mercenary as were the motives by which they were influenced, and unrecorded the deeds of wrong and suffering, except in Heaven's great book, by which it was accomplished; yet to the candid thinking mind, we contest, it can not appear as an unmixed and unmitigated evil, devoid of design, and entirely without the guidance of the Almighty. That God brings good out of the evil acts of men is no apology that evil may be committed. Far from it. This is more than demonstrated by the result and wonderful punishment inflicted on the Egyptians for their oppression and evil designs in their treatment of the Hebrews, and we may remark that it is no less so in the *finale* of the great American Rebellion.

THEIR ORIGINAL CONDITION.

It would be pertinent to our purpose to inquire what was the actual condition of the Africans, in their own country, before their forcible immigration to America, and also to show what are the possible advantages of the change, by subjecting them to bondage as it existed in the United States, under real or *pseudo* Christian masters, and the consequent more humane treatment they received as compared with their bondage under the brutal savages of their own color and land. But as we do not intend the present article as a panegyric in defence of slavery, or as showing that it had a Divine origin, but merely to give facts as they exist, we give the following vivid picture of the present moral condition of Central Africa, as drawn by DU CHAILLŮ, in a public lecture, a few weeks ago, in New York City, and published in the *Tribune*. M. DU CHAILLŮ, says:

The cannibals occupy a mountainous country called Fan, situate two degrees north of the Equator, and about 150 miles from the coast. He carried with him a stock of coats and pantaloons, and, starting from Carisco Bay, passed up the Minu river. On reaching the Mbondeno country, he found that his fame had preceded him, and the people believed his trunks and boxes contained immense wealth. They gathered around him, and he had apprehensions for his safety; but the distribution of a few presents made them quite peaceably disposed. He did not remain here

for any length of time, but pushed on for Fanland, guarded by a man from Benai, who wore the rather airy costume of a shirt. He arrived at the borders of the country very hungry, and, while watching for an opportunity to kill a monkey for food, he saw two Fans—a man and woman—armed with poisoned arrows, standing convenient. Alone in the presence of cannibals was not a comfortable situation, and he felt somewhat queer. They did not molest him but became his conductors to the village, and as he walked down the streets and looked upon the bones of men and women whose flesh had furnished a feast, the thoughts that crowded upon him were not of the most consoling description. The people seemed to dread him, and ran away, a woman entering her house with the leg of a man under her arm. He was regarded as a spirit by the Fans. But he assured the people he was not an evil spirit; the King, however, refused to see him on the day of his arrival, as he feared some evil if the spirit looked upon him. The succeeding day, however, the King, with a large retinue, consented to receive him. The Fans are cannibals of the worst kind, and eat the bodies of their dead. It is not customary for families to eat their own dead; and when a death occurs, an arrangement is made whereby the party obtaining the body will, when a death takes place in his household, reciprocate the favor, and thus the bodies are exchanged. *The Fans are the most intelligent and industrious of the races in Africa.* The houses are well ordered and made of bamboo; but the beds are hard, and a night upon one makes bones ache in the morning. Polygamy is practiced by them, but slavery is little known, as they prefer to eat their prisoners to selling them into bondage. Some years ago the Fans lived 300 miles from the coast, but now they are found ten and even five miles from the sea. They overcame every other race they engaged in battle, and have either killed, or eaten, or absorbed them. There are also blacksmiths among them, and these upon very large anvils work up iron into splendid knives and weapons; but by what means they obtained the anvils he never could learn. A visit was also made to the Osheba Country, the inhabitants of which are also cannibals. While in this land food became scarce, and the King organized a hunting party. On reaching the hunting grounds, pits 20 feet deep were dug and converted into traps by covering them with the fallen branches, over which was scattered some earth, and the vines that trail along the ground were woven into a sort of net-work which formed an inclosure. The men then scattered, beat their drums and made a great noise, driving the elephants into the net-work or into the pits, and the result was that in three days 25 elephants were killed. The meat was very tough, and after 24 hours boiling succeeded in making it fit to be chewed. Having seen the cannibals and participated in an elephant hunt, he returned to the coast, and passed through a country so infested with ants in parts that the elephant, the tiger, the gorilla, and even the rats and mice ran away from them. These ants travel in a continuous line, and upon one occasion he observed them for 12 hours, and still the army had not passed. The coast was reached at Cape Lopez, and he was regarded as the first man who had come there not interested in the slave trade. He obtained an introduction to the King, who was in full court costume—a dress coat, a hat and neck tie, and a crown like what some actor might have worn. The lecture was

closed with an account of a reception and ball given in honor of M. Du Chaillu, by the King and his chief officers, one of whom wore a coat, another a shirt, and a third a hat, a fourth a necktie, and one presented himself wearing only a pair of shoes. The inspiration at the ball was whisky, and a large glass of the ardent was supplied to each woman present, so as to induce her to dance with the utmost abandon.

This needs no comment—degradation unequalled in the brute creation, compared with which the worst horrors of American slavery pales into insignificance and becomes virtuous and commendable. It is not pretended that this is a picture of the entire continent, but it is not improved by the fact that the King of Dahomey can offer up a sacrifice of ten thousand human beings at the celebration of his birth, or the marriage of his daughter.

Even King Theodore, a professed Christian, a reputed lineal descendant of the Queen of Sheba, and Solomon, King of Kings, Lord of Earth, Conqueror of Ethiopia, and Saviour of Jerusalem, in whose realm the gentle and softening tenets of "the Saviour of mankind" are said to have held undisputed sway for over eighteen centuries, committed horrors not surpassed by those of the King of Dahomey. A correspondent of the *London Times*, says:

"I have already told you that all the European prisoners were free, and yesterday, on the capture of Magdala, the Abyssinian prisoners also—the picked men and leading nobility of the country, kept by the tyrant as hostages each for the slavery of his own province—had their chains knocked off.

"We had been told by his prisoners, our fellow countrymen, that the day before the arrival of the British army, Theodore had summoned all the prisoners to his presence, and had in cold blood butchered over 300 of them, some with his own hand, almost within sight and hearing of the rest, who momentarily expected the same fate. But though details of this kind make one shudder, the mind of a civilized man, whose whole experience runs counter to a vivid faith in the actual existence of such atrocities, somehow can not fully realize them, or take in their whole terrible import. Yesterday, however, nothing was left to the imagination, the tragedy was forced in all its naked horror upon our revolted senses."

Another correspondent, describing the scene, says:

I happened to meet one of the European captives, and requested him to point out the place where Theodorus had crowned his sanguinary career, with the slaughter of 308 prisoners. About twenty yards from the houses where the Europeans had languished in captivity for four years and over, was a high cliff, down which the prisoners had been hurled after being slaughtered. Stepping cautiously upon the gory rocks to the very verge of the cliff, a sight presented itself which has no parallel in modern history. Not forty feet below there lay a pyramid of naked human bodies, twenty feet high and a hundred feet in circumference at the base, slashed, cut, embowelled, shot, stabbed, dismembered or decapitated. Feet, legs, arms and heads more numerous than the pebbles on the slope of the

cliff, were scattered for hundreds of feet around the ghastly pyramid.

The stench from the human shambles was enough to kill the stoutest man. Hundreds of men, hundreds of horses, and thousands of donkeys were, at that moment, emitting pestilential odors. Beasts at prey, grown bold with non-interference, attacked wounded men, who made the hills and heights re-echo dismally with their cries.

Who then shall say that God did not and has not, especially in this case, overruled the evil designs of evil men, for both the present as well as future good of the four millions of colored Americo-Africans! Transferred from the above described scenes of brutal barbarity, although into a degraded and servile condition, yet who will contend that it is not preferable; and, as far as the efforts of the Christian world has thus far gone, it is the only successful effort that has been made towards the conversion and enlightenment of the colored race and the redemption of benighted Africa.

Imperfectly as we have done it, we think we have distinctly shown the hand of God in this great work. He works by means, and "His ways are not our ways," and all those who oppose "His ways" with *their ways* will "come to grief" and "be confounded." Let us enquire now what is the present

STATUS OF THE NEGRO IN THIS COUNTRY.

First.—It is a most undeniable fact that he has been a most serious disturbing element in the affairs of the nation for many years, and without taking an active part in the affairs of State, he has been "the bone of contention" that has embittered the fountain of our national happiness, and like "a skeleton in the cupboard," has been a constant apparition casting a shadow over our dreams of present greatness and future glory. By a violent revolution, such as the world never saw, that threatened the very foundations of the nation, he has been MADE FREE, and without education and without means he is thrown upon the consideration of the world as a competitor, with a proud, domineering race, that boasts thousands of years of civilization, and the very farthest advancement in the arts, science and refinement.

Wonderful, indeed, has been the display of a pent-up thirst for learning on the part of emancipated slaves; and equally wonderful has been the self-sacrificing labors of those noble sons and daughters of our citizens who have devoted themselves—their all—to the education and elevation of the black race, equalled only in the history of the world by the enthusiasm and sufferings of the early disciples of Him who died, alike to save "Parthians, and Medes, and Elamites, and the dwellers in Mesopotamia, and in Judea, and Cappadocia, in Pontus, and Asia, Phrygia, Pamphylia in Egypt, and in the parts of Libya about Cyrene, and strangers of Rome, Jews and Proselytes, Cretes and Arabians," and of "every nation and tongue." This

people—four millions—yesterday but things—goods, chattels—now by the "grace of God" stand upmen—a nation—"born in a day"—and claim recognition and consideration among the national families of the earth.

Second.—That this contact and contest of the Americo-Africans with the acknowledged superior race will result in the intellectual elevation of the blacks, as a necessity will not be disputed. The foot-ball of partisan strife, and alike the theme of the demagogue and the patriot, every change and every effort will but result in his further improvement and elevation—it is a tutelage that will not be wasted, but is preparatory to his elevation as a separate member of the family of nations occupying the "foot-stool."

Third.—Can they in peace and unity occupy the same territory with the white race, enjoy equal rights, and be placed on the same social plane? Can the "son of the bondwoman inherit with the son of the free?" If not, what is the interest of both? are questions of political economy and practical importance, and to which, as a nation, we can not turn a deaf ear. It is true the experiment is being tried in the South—the North is forcing upon the South a recognition of political and social equality that they themselves are unwilling to grant. Indeed, if we may place full reliance, and we know no reason why we should not, upon the statements of the *New York Tribune*, their condition in the "first city of America," is, by law, worse even than slavery itself. The *Tribune*, of Feb. 21st, says:

"But what shall be said of that other class against whom nearly every door is closed, and every hand is raised in opposition? How can we properly sympathize with the poor colored man who has, since the riots of 1863, been driven from our docks by the combined action of the stevedores, so that from the foot of Wall street to the Hook not one colored man is allowed an hour's work? The laws of our city do not allow one of these colored men a license to drive a cart or carriage. Not a single colored man, so far as is known, is in the city employ—not even to sweep the streets—and the still more menial service of public scavenger is now taken from them; and yet they must eat like other men. Should they not receive our special sympathy?"

THE REMEDY

Is distinctly pointed out, and already begins to foreshadow itself. "Why wilt thou not let Israel go?" is now being propounded, and will, ere long, in thunder tones, reverberate and re-echo in our ears, until its deafening sound will drown every other thought but justice to a race that, while we have been the instruments of benefitting them, we have robbed them as never people were robbed and outraged since the days of Moses—and another Moses and another Joshua will arise that will force the American People to consider in justice their claims and respect their rights and furnish them the means to migrate to a land where a foothold is already prepared

for their reception—where they will become men indeed—and be the instruments of God to carry His pure "Gospel of Peace" through the length and breadth of "benighted Africa." This is the evident high-born destiny of Americo-Africans, and the steamship of the present day will be the "swift-winged messenger" to convey them to their future home and field of labor, while the railroad and the locomotive will carry civilization and Christianity with the speed of the wind and as certain as the current of a mighty river, spreading the truths taught by Moses and the Prophets and reiterated by Christ and his Apostles to the uttermost parts of the land, until the light of genuine Christianity shall be equally diffused with the rays of the natural sun.

IS IT PRACTICABLE—THE WAYS AND MEANS.

The natural increase of population of the black race in this country is about three per cent., or one hundred and twenty thousand per annum over and above the natural mortality, although from extraordinary causes, as, for example, during the war, the mortality bill may very materially reduce the per cent. of increase. Now, the emigration to this country from Europe is about three hundred and fifty thousand a year, and it will not be contended for a moment that the resources of this country are inadequate, even in our dormant navy alone to transport an equal emigration to that coming to our shores in the ordinary merchant marine, without the stimulus of Government aid. If this should be accomplished what would be the result? Why in fourteen years, by the emigration of three hundred and fifty thousand per annum there would remain on this continent out of the present population of four million blacks—allowing the ratio of increase and mortality to be correct—only seventy thousand souls, and in the spring of the fifteenth year, the last of the race would have "crossed over Jordan," and a new nation formed, taking rank among the strong powers of the earth.

DO THEY WANT TO GO?

That the emigration must be voluntary, is conceded at the outset; and the question to be answered is, "do they, or will they desire to emigrate." That the temptations to Liberia, with its accompanying hardships, has not been sufficient to induce any very considerable number to seek its shores, we confess, even when it was to escape from bondage. With increased intelligence and education, however, this will be different; and with the prospects of a distinct nationality and individual aggrandizement, with the aid and patronage of the American People and Government, not merely as an act of Christian benevolence, but as a right—the cancellation of a just debt, due for two hundred years of servitude—with an abundance of territory, purchased by a liberal policy from the native chiefs, and laid out in judicious homestead tracts, we contend that an exodus will set

in that will crowd our transit capacity greater than the above estimate. As an evidence of this growing desire, even without a thorough knowledge of the situation, we give the following from the official proceedings of the present Congress:

WASHINGTON, March 9.

SENATE.

"Mr. Conkling (Rep. N. Y.) presented also a petition of one hundred and fifty colored men of Georgia and Alabama setting forth the oppression under which they labor by being unable to get employment, though willing to work, and asking necessary means to help them to return to Africa."

SENATE.

WASHINGTON, March 10.

"Mr. Trumbull, of Ill. (Union), presented the memorial of the Executive Committee of the Colonization Society, stating that 3,000 persons, mostly from North Carolina, are desirous of emigrating to Liberia; that the funds of the Society are exhausted, by sending 1,200 there last year, and asking an appropriation of \$100,000 annually, for the establishment of a line of steamers, and that \$100 be donated to each emigrant."

These are but a few of the bubblings that reach the surface; they are enough to show the strength of the current underneath. But let a leader spring up among them in whom they have confidence, and there will be such an outpouring and ingathering for the "promised land" that was never equalled, except when Israel left the land of Goshen.

The subject is susceptible of indefinite extension, but our article is already too long. One word more and we close.

THE RESULT.

A new nation, on a continent where no nation exists—it will be a giant at its birth, and will receive the fostering care and protection of the "first nation of the earth," until in the fullness of time the swaddling clothes can be removed and it can march in full national proportions and grandeur. Africa will be redeemed—its well known agricultural and mineral resources developed—railroads and Christianity will cover the land, and the dark black spot on the Map of the World marked "unknown" will be illuminated with the brilliant effulgence of the "Son of Righteousness."

Should we, from a mistaken policy of economy and niggardness, not second the generous impulses of their nature, and withhold the proper aid, miscegenation, degeneration and final extinction of the inferior race, as well as corruption to the blood of the whites is as sure to follow as that day succeeds the night. Justice, duty, honor, and the claims of the universal brotherhood of mankind demands of the American People all the sacrifices that can be called for to consummate this grand design of saving and Nationalizing the Americo-African race—it will stand forth to all time a monument to our manhood and self-respect, and a beacon light of justice to the nations of the earth as long as Time shall last.

Material Development.

Mr. Wood, of N. Y., (Dem.) spoke on the revenue and financial system of the Government.

He urged development, for the exclusive use of Government, of the mineral regions of the country, as the means of prevention of excessive taxation, and for the eventual payment of the public debt. He then opposed the bill under consideration, and announced his intention to offer several amendments.

During Mr. Wood's speech, Mr. Price remarked that the proposition was a good one if feasible, but the difficulty was that since the discovery of gold in California, the production of every dollar's worth of gold and silver had cost us as much, if not more, in labor.

Mr. Wood, in reply, referred to Mr. Ross Browne's report, showing one large mine in California had produced in a year \$1,120,000, and the cost of production was only \$385,000.

While the Government can not directly and profitably open and work mines, any more than they can cultivate a farm, yet by aiding in the construction of the great avenues of commerce and locomotion across the continent, passing through the great mineral and agricultural regions of the country, affording the means of transit and protection to the hardy pioneers who "take their lives in their hands" to hunt for treasure, they will do more to advance agriculture and increase the production of the precious metals, render valuable our now unavailable real estate, and develop the material interests of the nation, than by any other legislation that can be adopted.

Indian Troubles.

The Helena (Montana) *Herald* has advices from Fort Buford, and along the upper Missouri river, that there is prospect of a renewal of Indian hostilities, and that Government is preparing to fight. It is reported there that Government is chartering all the steamers on the Missouri river for the purpose of transporting troops and supplies, and making other preparations for a general Indian war. The Tenth Infantry, stationed at Fort Abercrombie, is under marching orders, and the 31st Infantry, at Forts Tiltons, Stevenson and Buford is ordered to Montana, to relieve the Thirteenth Infantry.—*Cin. Gazette*.

The cheapest, easiest and most speedy way of settling all these difficulties is for the Government to complete the Northern and Southern Railroads to the Pacific. An ordinary Indian war, with not more than fifteen hundred or two thousand warriors, or even a less number, engaged in it, and in which nobody would be killed, except white men, will cost the Treasury as much in cash as either of these roads needs of Government credit to secure their construction. When these roads are once made, there will be no more Indian Wars,—they will "hang up the fiddle and the bow,"—the war-path will be abandoned—and they will retire either to a "Reservation," or to the hunting ground of their fathers, a bourne from whence "no traveler returns."

PERSONAL.—J. R. REED, Esq., for so many years the very able and efficient General Freight Agent of the Cincinnati, Hamilton & Dayton Railroad, having resigned his position, the Board of Directors have been fortunate in securing the services of LAFAYETTE DEVENNY, Esq., to fill the vacancy. Mr. DEVENNY is too well known among railroad men to make it necessary to give him a formal introduction; it is true he has been out of the harness for some time past, but his familiarity with the details of railroad business will make the responsible duties of his new position sit lightly on his shoulders. Although the interests of his road will be well cared for, those have occasion to do business with the General Freight Agent, will find as courteous and liberal a gentleman in the chair as can be found in any similar position on any road in the country.

WM. R. PATTERSON, Esq., an old and experienced forwarder has been appointed General Contracting Freight Agent, with his office at No. 115 Vine Street. The appointment is judicious, and one that the future business of the road will demonstrate meets with the approbation of the business community.

KIT CARSON.—Christopher, or as he was always called, Kit Carson, died on the 23d day of May, at Fort Lyon, Colorado. He was fifty-eight years of age on the 24th of December last. He was born in Madison county, Ky., but was taken to Missouri when an infant. He was apprenticed to a saddler at the age of fifteen, and two years later joined a hunting expedition. The next sixteen years were passed in trapping and hunting. He next officiated as guide for Gen. Fremont, and was afterward appointed a Lieutenant of the U. S. Rifle Corps and Indian Agent in New Mexico. A brave, enterprising and shrewd man, he had all the good and few of the bad qualities of a borderer. Rough, but generous and kind hearted; his death will be sincerely regretted.—*Cin. Gazette.*

The above, as far as it goes, is a just but feeble tribute to the public services of KIT CARSON. The value of his self-sacrificing labors as a pioneer, sweetened, it is true, with his fondness for adventure and the wild life of the frontier can not be estimated but by the progress and material development of the nation, and of which he was the most brilliant forerunner. His tales of the hidden wealth of the West, has led thousands to the gold fields of California and the other yet unborn States; and the locomotive—the great messenger of civilization—is now descending the grassy vales this side the everlasting snows of the Sierras, while the echoing snort of the iron horse treading in the foot-prints of KIT CARSON is already heard beyond the summit of the Rocky Mountains hastening towards the great central basin of the Western half of the continent. These are the legacies of KIT CARSON, and are monuments to his memory more enduring than granite.

CINCINNATI, LEXINGTON & EAST TENNESSEE R. R.—The stockholders of the Cincinnati, Lexington & East Tennessee Railroad Company held an adjourned meeting June 1st, 1868, at the First National Bank of Covington, Kentucky. The following gentlemen were elected directors of the Company: Lewis Worthington, John W. Ellis, S. S. L'Hommedieu, H. C. Lord, David Sinton, and James M. Glenn, of Cincinnati; Vincent Shinkle, Esq., of Covington, Ky., M. C. Johnson, Esq., of Lexington, and Milton J. Durham, Esq., of Danville, Ky. At a meeting of the Directors, immediately afterwards, H. C. Lord, Esq., was elected President, and Lewis Worthington Vice President of the company.

This is a very strong, live board of Directors, and should the efforts now pending for the purchase of the Kentucky Central and consolidation under the charter of this company and the extension of the road to the Tennessee line, from any cause, fail, we doubt not the above named gentlemen will find the means to construct the entire line, in accordance with the powers of their charter, from Cincinnati to the Southern boundary of Kentucky. We understand that Mr. H. C. LORD, has accepted the Presidency of the Board, which we consider an additional pledge of success.

LOUISVILLE AND CINCINNATI RAILWAY.—The track laying will be commenced on the Louisville and Cincinnati Railroad in about two weeks, at four different points, viz.: South Covington, Kentucky river (both sides), and at Lagrange. About half a mile of track has already been laid, extending from Cole's Garden to the De Courcy Creek pike. A temporary track has also been constructed from the Licking river near Cole's Garden, to the main road, at a point in South Covington, for the transportation of iron and other material. Stith's tunnel, about nine miles from Covington, has been completed, and work on the Flemming's Hill tunnel, in the same neighborhood, is being pushed ahead with great rapidity, two sets of hands being employed—one at night, and the other in day time. The first named tunnel is about two hundred feet long, and the latter one thousand.

It is now confidently expected that the laying of the track for the entire road will be completed this year, and trains run through to Covington by the first of January, 1869. The eastern terminus of the road will be in Covington until the completion of the bridge over the Ohio river from Newport to Cincinnati, after which a track will be laid to Newport.—*Louisville Courier.*

DAYTON AND MICHIGAN RAILWAY—ELECTION OF OFFICERS.—The annual meeting of this company was held in Toledo on Tuesday, at which the following Directors were elected: S. S. L'Hommedieu, John Young, Wm. Goodman, Lowell Fletcher and Geo. T. Steadman, of Cincinnati; M. R. Waite, of Toledo; Dr. Holbrook, of Wapakoneta; Dr. Pomeroy, of Ottawa; P. Smith, of Dayton. Subsequently the Board elected the following officers: President, S. S. L'Hommedieu, of Cincinnati; Vice-President, M. R. Waite, of Toledo; Secretary and Treasurer, F. H. Short, of Cincinnati; General Superintendent, D. McLaren, of Cincinnati; Assistant Superintendent, John H. Weller, of Dayton.

Northern Central Railroad.

THE OLD AMBOY AND LANSING ROAD "AWAKETH."

The very favorable and commanding position of the city of Lansing, as a center for the combination and connection of railroads, has long been conceded by persons of intelligent foresight, and has now secured general recognition.

The railroad from Detroit, through Lansing to the Lake, is not only certain, but its prompt and early construction is assured. This road will penetrate and traverse on its way, the best lumber region in the State, and secure the large and valuable business aggregating at Green Bay and demanding shipment. It will have powerful connections at Detroit, and share in all the advantages and attractions of that large and growing commercial city,—already quite enough to draw any railroad to it,—will pass through the capital of the State, a connection with which has become important and valuable to all roads having affinity with the great products and trade of Central and Northern Michigan,—passing along its whole length, through a fertile, trade-creating region; reaching and receiving, at its North-western terminus, a large and profitable traffic, now ready for, and demanding the facilities the road will furnish.

So cogent and controlling are the policy and reasons, in behalf of the Lansing line for the American extension of the Grand Trunk Railway, that its European promoters have not been, nor can they be, withdrawn from it. The momentous significance of the great International and Continental artery of commerce, to the people of Central Michigan, was presented with unusual ability, and comprehensiveness, in an article which we transferred to our last week's columns, from the *Albion*, an English newspaper, which has been published for the last half century, in the city of New York,—to the very careful re-perusal of which we earnestly urge our readers, because a full understanding of it is essential to just conceptions of the unparalleled scope and power of this vast International Thoroughfare, made as certain, and as certain upon our line, as destiny itself, by the highest political considerations which can be addressed to the British Government,—by the gravitation of international necessities,—by geographical law, and by commercial relations of the vastest magnitude and value.

Cincinnati, menaced in all her interests, by the wonderful and invading growth of Northern and North-western cities, is now stimulated and doomed to recruit from the North; and she finds a remarkable coincidence, in this direction between her true policy and the state of railway development. Fragmentary lines, now in use, and unfinished, but far advanced portions of road-way, all in line, and pointing directly from Cincinnati to Lansing, already constitute three-fourths of an accomplished line between Cincinnati and Amboy.

From Amboy to Lansing, the work is more than half done. The Michigan portion of the line passes through a section of the State which is unsurpassed in fertility and kindred advantages,—these having brought about the due and invariable results, grouped in large population, characterized by intelligence, energy and thrift,—and very considerable wealth, distributed into general improvement, comfort, business and prosperity. This section has abundant means for the prompt completion of that portion of the important line which traverses it.

Cincinnati wisely contemplates Lansing as the Northern terminus, for the present, of the line,—here reaching, as she will, strong and commanding connections with the remote North-west and the North-east,—deriving from both directions, large and essential tributes to her manufacturing and commercial interests,—enjoying, satisfactorily, the business of the extended line,—exempt from railroad competition, and from rivalry with her city interests.

The recent suggestion for action, in behalf of the line, came from Cincinnati. The interested people in Michigan promptly responded. A meeting of the Board of Directors of the Amboy and Lansing Company was at once called, and was held at Albion last Friday. Under an invitation from officers of the Company, Lansing was represented by Messrs. Borland, A. N. Hart and Dr. Shank.

Mr. Crane, the Company's Secretary, spoke with manly decision, sanguine confidence and earnest eloquence, in advocacy of the enterprise, and in assertion of the full ability and readiness of its friends in Michigan to take upon themselves and construct their share of it. His views drew out enthusiastic expressions of concurrence from all present,—all uniting in an earnest determination to build the road, and thus secure their rich allotment of land, now withheld from them by the hard and ungenerous action of Congress.

The Board of Directors resolved to inaugurate, at once, measures of progress, and to move immediately upon the work.

The people of Lansing will heartily ratify all that their delegates pledged in their behalf. It was their first railroad enterprise, and is perpetuated in reminiscences of sanguine hope, early friendships, common toil, and the too frequent reverse of common loss and disappointment. The revival of it, supplemented by the larger prospects offered in the Cincinnati connection, will renew and enhance their interest in it.—*Lansing Republican*.

The Powers and Responsibilities of Directors.

Recent events have not tended to strengthen public confidence in the good faith of the directors of our large corporations. The exposure of the internal workings of some of our prominent companies has revealed a condition of things which is a scandal to the business morals of the times. We have seen directors subordinating the interests of stockholders to their own temporary speculations in the most reckless manner. Indeed, to such an extent has this evil grown that they appear to seek their position as much for private speculations as politicians seek office for the sake of bribes and spoils. The position affords peculiar facilities for gaining information upon the affairs of a company which may be turned to great advantage in the ventures of Wall street; it supplies the loaded dice of cliques, which, in hands of ordinary skill, generally carry off the stakes of the gullible "outside public;" and in pursuing this object the duties and responsibilities of the position are, of course, lost sight of. When changes occur in the affairs of the company affecting the value of its stock, the matter is kept a strict secret by the directors until they have laid their plans for victimizing the stockholders by adroitly using these facts, which all were entitled to know at once. This use of the superior information of directors is in the nature of a fraud upon their constituents; a fraud of agents upon proprietors. Nor is this the only or most culpable form of abuse.

Directors are permitted to effect loans in behalf of the company in such amounts and for such purposes as they may please. One case of this kind is notorious, in which the board of directors borrowed \$3,500,000 from one of its members, in a manner which enabled the lender to use the stock given as collateral for speculative purposes. The facilities for speculation afforded by this transaction are generally supposed to have been turned so shrewdly, that the accumulated profits amount to almost as much as the loan itself; the public having been mulcted of the money. This is an illustration of one of the ways in which our railroad capitalists become millionaires at the expense of the public. We have seen the directors of the same company, within the last few weeks, guaranteeing or engaging to guarantee the bonds of other companies to the extent of \$8,000,000, and indirectly issuing new stock to the extent of \$10,000,000, and this most secretly and without one word of consultation with the stockholders. Another company has issued with the utmost secrecy, \$4,900,000 of new stock for purposes about which the stockholders were never consulted, and without their authorization; and when the question of the legality of the issue was brought into the courts, the directors, in order to escape the consequences of an unlawful issue, placed themselves and the effects of the company beyond the reach of the courts, organized under the laws of another State, and secured from a foreign legislation the legalization of their abuse of power. That the directors speculated themselves in connection with these transactions is admitted in their own evidence before the courts. These cases are but illustrations of what is going on upon a smaller scale continually.

Is it not high time it were understood whether this sort of abuse of the powers of directors is to be continued or placed under legal restraint? If it is to be continued, then stockholders ought to understand that the property in which they have invested is under a system of management which admits of systematic breach of trust; which keeps the shareholder ignorant of all he is interested in knowing, until the information is of no avail; which permits in the directors the carrying out of sinister purposes; which, by conferring large powers upon trustees, attracts into the direction the most unscrupulous of our capitalists, and tends to bring high positions of trust into contempt; which, in fine, constitutes chosen agents absolute masters, and makes the real proprietors tools and dupes. We think all must agree that this evil is becoming unbearable and should be placed under check, and the only question is, what are the best means of accomplishing that object?

There are two main essentials in any plan seeking this end—greater publicity respecting the affairs of companies, and a stringent limitation of the powers of directors or trustees. As to publicity, an annual report is now about the only information communicated by directors to stockholders; and even this is often made up in a partial manner and so as to conceal what it is especially important should be known. A yearly exhibit is wholly inadequate for affording the information which a stockholder needs in order to judge of the position of his investment. A merchant who took no further interest in his business than to require from his clerks a yearly balance sheet would be deemed a singular and very unreliable man of business; and it is somewhat of a marvel that so many should be found willing to put their capital into enter-

prises the condition and prospects of which they have such meagre data for estimating. True, some of our railroads are accustomed to issue a weekly statement of their gross earnings; but even this meagre information is optional with the directors, and is frequently withheld for speculative reasons when there are any variations of revenue calculated to affect the value of the stock. The issuing of these statements should be made compulsory on every road, and the scope extended so as to include the current expenses and the net earnings. This, of itself, would afford very important information, and would tend to hold in check the speculative propensities of directors. Stockholders, however, have a right to expect an explicit statement of traffic and finances, made out according to a searching formula, every quarter. Such an exhibit should especially include every branch of expenditure and a detailed statement of outstanding temporary obligations. This would remove the veil of secrecy under which so much official speculation is now carried on, and by revealing the condition of the corporations would enable the public to judge of the true value of stocks, bespeak confidence in them, and arrest that wild street speculation in securities which is now productive of such manifold mischief. It is true that the law gives to the stockholder the right of examining the books of the company at will. But of what avail is this right in ordinary cases? When the information sought is especially important, the directors or their agents usually so hamper the enquirer that he has to resort to legal process to get at the secret. Few are qualified to make an intelligent search of the books of a company; and fewer care to take the trouble. Besides, the stockholders have a right to expect, for the sake of their own convenience and interest, that their agents shall furnish them at frequent and regular periods, a full statement of affairs, and this right should be duly required by legal enactment.

The chief remedy, however, is to be sought in the limitation of the powers of directors. The present theory of the railroad law of this State is that the directors are not agents at will, and subject to consultation and instruction from their principals, the stockholders, but that, for the period of their office, they are, with but slight qualification, absolute masters of affairs. Without the consent of the stockholders they can buy property or roads, lease other lines, guarantee the loans of other companies, extend the road, make what they may deem improvements at discretion, contract loans upon their own terms, and increase the capital stock through the issue of convertible bonds. What more absolute powers could be conferred upon them? That such prerogatives are dangerous to the interests of corporation and of stockholders is too evident from the recent doings of directors in cases which have attracted much public attention. It would seem that the case would be fully met by an amendment to the general railroad act providing, among other things, as follows: 1, That no new issues of stock or of bonds shall be made, except with the consent of two-thirds in interest of the stockholders; 2, That all issues of stocks or bonds shall be made by open tender, and to the highest bidder; 3, That no purchase of land, or of other roads, and no leasing of other roads shall be made without such consent; 4, That directors shall not guarantee the stock, bonds or coupons of other companies, nor extend their track, nor make improvements involving more than a limited

outlay without such consent; and, 5, That directors shall not borrow money, upon temporary loan, beyond a certain limited amount, except with such consent.

Under some such limitation of the powers of directors as this, we should have a speedy end to the abuses which now create so much scandal, and are sapping the very foundations of judicial honor and probity. We trust that some of the many influential citizens, who are daily protesting against this venality in high places, will take the matter up with spirit, and carry it to the Legislature. Such action on the part of the Chamber of Commerce would be a proper sequel to its late doings in connection with the Erie struggle.—*Financial Chronicle*.

Railroad to Fort Wayne.

The columns of the GAZETTE have contained many articles setting forth the importance of direct railway communication with Fort Wayne, Indiana. That place is the center of a vast and most productive country, the trade of which would naturally tend to this city; but it has gone in other directions, simply because there was no direct road to Cincinnati. There was still another reason for urging the construction of a direct road to Fort Wayne. There a connection may be made with the Grand Rapids Road, which has received its iron, and will be completed in one year, and with the road to Saginaw, which will be running in two years. It is supposed one-half the lumber now used in this city comes from Michigan. We need not stop, therefore, to point out the great importance to Cincinnati of a direct railroad to and through the great lumber regions of that State.

While, therefore, a direct road to Fort Wayne would secure to us the trade of an important portion of Indiana, it would also bring us into communication with the vast lumber regions of Michigan. Yet plainly valuable as this would be, Cincinnati has been slow to contribute aid to that enterprise. We have given paper encouragement and passed the strongest kind of resolutions, but it requires money to build railroads, and when it came to the money we put our hands in our pockets and kept them there. Consequently the Richmond and Fort Wayne Road, which is the completing link in the line we so much need, has been dragging. Indeed, we understood awhile ago that it was dead. We are glad to learn, however, that new life has been breathed into it, and that it is fairly on its feet again, and that it has better legs than it had before.

On Friday evening last a meeting was held at Fort Wayne, at which were present Mr. Cass, President of the Pittsburg, Fort Wayne & Chicago Railroad, Mr. L'HOMMEDIEU, of the C. H. & D. Railroad, Mr. EDGARTON, of the Grand Rapids Railroad, and the President and Directors of the Richmond & Fort Wayne Company. The result was an agreement by which the Cincinnati, Hamilton & Dayton, with the Pittsburg, Fort Wayne & Chicago Company join, *pro rata*, in guaranteeing the interest on \$1,000,000 bonds, to be used in purchasing the iron, chairs and spikes. These Companies also agree to furnish the rolling stock in the proportion of 148 to 70 miles. The Cincinnati, Hamilton & Dayton, and Eaton & Richmond Companies, are to run the road on joint, *pro rata*, account with the Pittsburg, Fort Wayne & Chicago.

It now only remains for the Cincinnati, Richmond & Fort Wayne Company to increase its capital stock, so as to secure ad-

ditional means sufficient to make the road from Richmond to Fort Wayne ready for the iron. A great deal of this work has already been done, and if Cincinnati will do its share, which will not be large, the road may be opened in twelve months from the 4th of July next.

This new route will give a direct line to Chicago, only eight miles longer than the *shortest* of the present routes; but this is of little consequence compared with other advantages to which we have referred. It will open up new markets for our merchants and manufacturers, and when we get our Southern connections, which are bound to come, hard as it now seems to do anything except talk, we will have a great chain of roads from the far South to the extreme North on almost a direct line. Thus Cincinnati will realize advantages, vast and superior, which nature has so lavishly placed within her reach, and nothing further will be required to give her perpetual supremacy as the great city of the Valley.—*Cin. Gazette*.

THE EFFECT OF GRADES ON RAILWAY EXPENSES.—It costs no more for a locomotive, if the grade permits, to draw fifty cars than twenty-five cars. An engine capable of drawing fifty cars on a moderate grade might barely move itself on a grade of two hundred feet to the mile. As the grade increases, the capacity to draw decreases in a greater ratio, and the cost to move a certain tonnage increases in a similar ratio.

The cost of draught on a railroad is nearly as the power employed, so that it will cost nearly twice as much to carry a load on a railroad with an ascending grade of twenty-five feet to the mile as to carry it on a level route. This consideration will, therefore, justify large expenditures upon the excavations, embankments, etc., of a railroad with a view of reducing its grades. The propriety of such expenditures is to be determined by comparing the annual interest of the amount with the annual saving of power ever after in drawing the expected loads over the flattened road.

But, on the other hand, this principle may be carried to excess. These great expenses for graduation should be incurred only when maximum loads are to be constantly carried at high speeds as on important leading lines of great traffic. Much steeper grades than would be otherwise allowable may be adopted on roads on which maximum loads are not often carried, and on which the trains are required for public convenience to go often, and will, therefore, generally go light.

The engine may be able to draw 400 tons on a level, and seldom have more than one hundred to draw. In such cases the true economy is not to go to great expense in order to reduce the grades below such a degree of steepness as would permit the engines to draw up their usual small load, nor to attempt to make a very level road, on which the engines could do a great deal, but would have very little to do. The same reasoning applies to railroads between places furnishing but a moderate amount of travel, such as thinly settled portions of this country.—*Amer. Artisan*.

MEMORIAL OF RAILROAD MEN.—A memorial was presented in the Senate to-day, signed by the Presidents of more than fifty leading railroads of the country, asking for the passage of the pending bill increasing the subsidy of the Government to the Pacific Railroad, Eastern Division.—*Telegram to Gazette*.

National Finances.

We clip from the *Tribune* the following exhibit of revenue and expenditure, and estimates thereof, for the coming year, made in the House of Representatives by Mr. Schenck, Chairman of the Ways and Means Committee. It is highly encouraging. It appears that the actual expenditure for the current fiscal year has been:

For nine months.....	\$280,678,066
Three months to July 1, 1868, estimated.....	98,500,000

Total for the year.....\$379,178,066

Of this \$149,418,383 is for interest on the public debt, \$123,858,496 for the War Department, \$51,554,175 for the civil list, \$25,613,673 for the navy, and \$23,733,337 for interior pensions and Indians.

The revenue for the same year is as follows:

Six months, (estimated).....	\$299,194,459
Three months, to July 1, (estimated).....	106,600,000

Total.....\$405,794,459

The amount of revenue for the fiscal year ending June 30, 1868, actual and estimated, is made up thus:

Customs (coin).....	\$165,208,374 37
Lands.....	1,166,337 31
Internal Revenue.....	190,686,426 44
Direct tax.....	1,713,960 46
Miscellaneous.....	47,019,860 71

Total.....\$405,794,459 29

Next year's expenditure (ending June 30, 1869,) is thus stated:

Interest on public debt.....	\$129,678,078
Bounties, estimated.....	40,500,000
Purchase of Alaska (coin).....	7,200,000
All other.....	150,278,366

Total for the year.....\$327,651,000

Against which revenue is estimated as follows:

Customs (coin).....	\$165,000,000
Internal revenue.....	190,000,000
Other revenue.....	31,000,000

Total revenue, 1868-69.....\$406,560,000

According to these figures the coin revenue will be some \$35,000,000 in excess of the interest on the public debt, leaving \$23,000,000 of coin revenue (beside the Alaska purchase money) available for the purchase of the principal during the year. This is equal to the amount required under the sinking fund provision in the fifth section of the act of Feb. 25, 1862.

LEXINGTON AND BIG SANDY RAILWAY.—The stockholders of the above road have sold out to an Eastern company all their interest for the sum of \$150,000, to be paid in the stock of the road, free of incumbrance. The road is to be built by January, 1873, and to be completed from Lexington to Mount Sterling within two years from the first of January, A. D. 1869; Winchester to be a point in the road from Lexington to Mount Sterling. Work is to be commenced immediately, and prosecuted with energy until completed. The new company consists of Nathaniel Thayer, H. H. Hunnewell, Matthias Ellis, Walter Hunnewell, William Whiting, Erastus Corning, Richard Heckscher, Stephen Van Rensselaer, P. H. Watson, Amos Stone, and others.

A stockholders meeting of the Muscatine, Oskaloosa & Council Bluffs Railroad was held at Muscatine, Iowa, on the 6th inst., when the following officers were chosen:

President, Hon. Jacob Butler; Vice-President, L. W. Babbitt; Secretary and Treasurer, C. Weed; Attorneys, Hanna & Washburn; Financial Agent, A. G. Stein, Philadelphia; Executive Committee, Jacob Butler, S. G. Stein, C. Weed, M. E. Cutts, and B. A. Haycock; Directors, Jacob Butler, S. G. Stein, Chester Weed, Muscatine; Mr. Meacham, Washington County; B. A. Haycock, Keokuk County; J. H. Sanders, Keokuk County; M. D. Cutts, Mahaska County; Rob't Seevers, Mahaska County; Jacob Markell and P. H. Bousquet, Marion County; G. E. Griffith, Warren County; W. W. McKnight, Madison County; W. B. Hall, Adair County; L. W. Babbitt, Pottawattamie County; J. H. Whitney, Cass County.

It is in contemplation to build a railroad from Rock Island, on the Mississippi river, via Galesburg to Beardstown, on the Illinois river, and thence via Winchester, Whitehall, Greenfield, Fairview, and Edwardsville to St. Louis.

Logansport has agreed to make a donation of \$50,000, on condition that the Chicago, Columbus & Indiana Central Railroad Company, expend the sum in the erection of shops at that place.

T. F. Randolph,

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} Dec. '67.

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BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

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All orders addressed to us will receive prompt attention.

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D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
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Aug. 2, 1866.]

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Without Detention arriving in New York 3:15 p.m. next
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2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave	Cincinnati.....	6,00am.....	7,00pm
"	Dayton.....	8,20 ".....	9,15 "
Arrive	West Salem.....	1,40pm.....	4,03am
"	Leavittsburg.....	4,40 ".....	7,30 "
"	Meadville.....	7,05 ".....	10,15 "
"	Susquehanna.....	7,30am.....	10,38pm
"	Paterson.....	2,33pm.....	6,17am
"	New York.....	3,15 ".....	7,00 "
"	Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
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and Chicago Railroad.

THIS IS THE ONLY ROUTE

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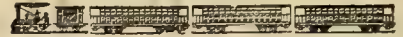
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
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and Front streets, and at No. 80 Fourth street, nearly op-
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and Steamboat Offices, in the West and South-west.

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CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change o
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front to East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton
at 1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

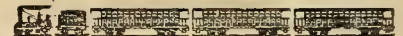
2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

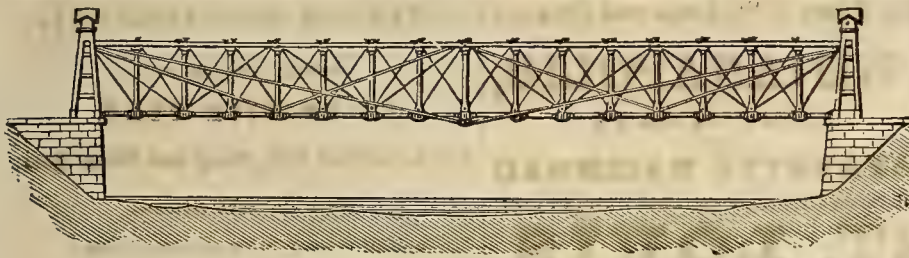
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
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J. F. RICHARDSON, Ass't Superintendent.

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(Plan of Bridge.)

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In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

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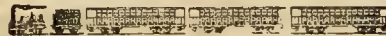
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All Springs tested to double their usual load.

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BUSH & LOBDELL,

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MANUFACTURE

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ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

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Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

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This great national thoroughfare is again open for
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Bridges and Tracks are again in Substantial Condition.

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Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and at rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure through tickets and through checks to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wes. Ag't, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 40 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
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Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 30 am	2 30 am
Cairo and St. Louis Express.....	2 20 pm	4 08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express, Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10 10 am	8 35 am
Connersville and Cambridge City.....	4 00 pm	9 15 am
Lawrenceburg.....	4 45 pm	2 20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

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MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, constantly on hand, painted, and ready for shipment, with instructions for applying them.

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JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

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SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.

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PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—from 1½ to 24 inches in diameter, and branches, for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS,

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CHAS. WHEELER

S. F. M. TASKER

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M. Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

2. But where are the means? How did two or three hundred thousand Europeans find their way here in a single year? They simply came and paid their own expenses; but this parallel will not hold entirely. The Negroes are much poorer than the Whites who have come here from Europe. The expense of European immigration has been paid—the *savings* of those poor people. But the negroes have not saved, partly because they never had the opportunity. Some few of them can pay their expenses, but the greater number cannot; and here, undoubtedly, lies the greatest difficulties of the case. But, there are two ways in which this difficulty may be overcome. In the first place, the government has many idle vessels, and many in service which might, with scarcely any expense, transport them. In the next place, by the em-

ployment of agents in Liberia, many Negroes could be carried there, on a pledge of *repayment by their labor*; for example, in the raising of cotton. Thousands of Germans are brought to this country on this plan. Half a century ago, nearly all the Germans came over in this way, and were called German Redemptioners. We mention this merely by way of showing that the thing *can* be done, if we have a mind to; and here, no doubt, is the greatest difficulty of all; heretofore we have had no mind to; and, although no scheme of benevolence—no theory of social progress was ever better demonstrated than that of colonizing the Negro-American; yet no one was ever more oppressed, and no one has had fewer friends. Why? Mainly because it is a scheme of benevolence—because men can not put money in their pockets by merely aiding a benevolent enterprise. What was to illumine Africa with the lights of civilization; what was to advance Christianity; what was to remove a social evil; was not such a scheme as promised much to the speculators in oil or gold, or to the greater speculators in politics. The last is the difficulty. Taking the politicians of all parties together, three ideas will be found prevalent among them as to the Negro. 1. That the country, and especially the South, wants laborers; and that the Negro is an inferior being who can do that labor without aspiring to an equality with the Whites. This is the leading idea of slavery; and it is nearly as strongly held now, that slavery is abolished. The theory now is, that he cannot rival the Whites, and, therefore, he can still be kept inferior. 2. Another idea of politicians is, that the Negro being now free he can be made a voter, and used as a counterpoise to other classes of people, to whom they are naturally antagonistic; and that, therefore, the Negro is a necessary element of American politics. 3. There is an idea among a smaller number, but still held by some, that society is best when composed of various ingredients; and that the Negro is now in America, and will be best off when trained up, as an equal on the land where he was born. These ideas of the Negro prevail among nearly the whole American people, and they all tend directly to the end of keeping the Negro here, and not at all to making him, as the European White immigrant has been here, an instrument of strength and civilization in another land.

3. We conclude further, that the Negro American, if he goes to Africa, must go willingly. There is now, since slavery is abolished, no power to make him go by force, nor is it desirable. But, we have them already there, and a great many more willing to go than there are means of carrying; and as settlements like Liberia are formed and successful, it is in the highest degree probable, that tens of thousands will be willing to go, as they come here from Europe

now. We consider the great and almost vital difficulty to the migration of the Negroes to Africa to be simply the *unwillingness of the Whites* to let them go, or aid them in doing it. The great mass of Whites wish to keep the Negro here, in the hope and belief that he will continue to be an inferior and a vassal. Time, however, will correct and determine in a short period whether the Negro is to remain here on equal terms with the Whites, or whether he is to return to Africa and civilize that country and develop its resources.

PURE WATER.

WHERE AND HOW TO GET IT.

ACCOMPANIED WITH A

Report and Map from Actual Survey,
BY

R. C. PHILLIPS, Esq.,

Civil and Topographical Engineer.

CORRESPONDENCE.

CINCINNATI, Ohio, June 1st, 1868.

T. WRIGHTSON, Esq.,—Sir: We have been pleased with the perusal of your several articles on the important subject of securing to Cincinnati a permanent and abundant supply of *Pure Water* from the Ohio river, above the mouth of the Little Miami.

If you can also demonstrate that it is practicable to supply the wants of the large number of citizens residing in the suburbs, and upon the hills surrounding the city, from reservoirs upon either side of the river, it would add very greatly to the importance of the project and secure to it many friends, who would cheerfully urge its most serious consideration upon the authorities of the cities of Cincinnati, Covington and Newport, to unite in securing an abundant supply of such an indispensable article to the health and comfort of the present, as well as provide for the rapidly increasing population of those cities and their surrounding suburbs, as *Pure Water*.

Truly yours,

M. GREENWOOD, CHAS. F. WILSTACH,
S. H. BURTON, LARZ ANDERSON,
JOHN SHILLITO, J. L. KECK,
R. ALLISON, W. W. SCARBOROUGH,
A. D. BULLOCK.

MESSRS. M. GREENWOOD, C. F. WILSTACH, AND OTHERS—Gentlemen: In response to your communication, we remark that the founders of Cincinnati, with all their brilliant anticipations of the future, probably never dreamed of the Cincinnati of to-day, and there are very few of the living, acting men of to-day who have any conception of the city that will cover the plateau and surrounding hills thirty or forty years from now. To

illustrate the past progress of the city, which is best shown by the figures of the tax duplicate, we quote the following from the Message of Mayor WILSTACH, which furnishes at a glance the ratio of increase in the value of the taxable property within the jurisdiction of the city. From this it will be seen that—

In 1830, the total real and personal valuation of property in Cincinnati was.....	\$4,206,204
In 1840 it was increased to.....	6,171,498
Another ten years (1850) brought it up to.....	42,862,728
And now, in 1867, it is nearly.....	137,000,000

Next year a revaluation takes place, when it is expected to reach nearly \$300,000,000.

It is true that Cincinnati is not the only city that has experienced this wonderful development and increase. We well remember that the New York of thirty-three years (a third of a century) ago, was no larger, and not as well built up as Cincinnati is now, and at that time that Chicago was *non est*. If the elements that have produced the past growth of Cincinnati, have not been ephemeral, and the product a sort of *fungus* anomaly, without solidity or substance, then may we safely claim that past history is a reliable basis for calculations for the future, and that the Cincinnati of 1900, with its suburban and dormitory cities, within a circle of twenty miles diameter, will contain almost as many inhabitants as is to be found to-day in the same space around the New York City hall.

If this view be correct it is a matter of the utmost importance not only to the welfare and comfort of the present generation, but forms one of the most essential elements in the future growth of the city, that the supply of water should be abundant, and as pure as it can be obtained.

It is less than twenty years since the last of those relics of our villagehood—the town pump—has passed away, and but thirty years since our present Water Works became the property of the city. The changes of this period are most distinctly seen in the above historic extract of the tax duplicate.

After the testimony furnished by his Honor, Mayor WILSTACH, in his last Annual Message, also by Dr. CLENDENNIN, the Health Officer, in sundry communications to the Board of Health, and the report of JOSEPH P. MAYER, Esq., the Superintendent of the Water Works, not only of the inadequacy of the present Works, which hold four million gallons, whilst the per diem consumption is eight million gallons; and the but temporary advantages to accrue upon the completion of the Garden of Eden works, with an altitude of 238 feet, or 64 feet above the present Works, and a capacity of only one hundred million gallons—the one holding half a days' supply, and the other less than sufficient for two weeks' at the present rate of consumption; and also of the contaminating influences that corrupt the source from which it is obtained, as well as the

only means of remedying this last evil—we deem any attempt on our part to prove the necessity of procuring the future supply of water for Cincinnati, from above the mouth of the Little Miami, a work of supererogation. Indeed, a river front of six or seven miles, (even if, as is hoped, the difficulty at the mouth of Deer Creek, should be effectually remedied) with the known fouling of the Little Miami river, in seasons of drouth, render this measure an absolute necessity as a matter of public hygiene.

It is proverbially true that running water purifies itself, but this is not so palpable a fact to the common understanding where every rod that the water traverses furnishes a continued accretion of filth and befouling influences, as must unavoidably be the case with our extended, high and steep river front. It is conceded that with the completion of the Garden of Eden reservoirs, there will be more time given for the precipitation of the impurities held in suspension or otherwise, in the river water. But it is not sufficient; many of the impurities, especially those resulting from the influx of city sewerage, are of a chemical character, and are not so readily eliminated.

Prof. JAMES P. KIRKWOOD, a very eminent Engineer, was employed by the city in 1865, to make a survey of the entire surroundings of Cincinnati, for the purpose of determining the question of the future water supply for the city, which the limited capacity of the present works rendered necessary. Mr. KIRKWOOD made very extensive and elaborate surveys for the purpose of finding a proper source of supply of pure water that could be brought to the city by gravitation, the same as the Croton water is supplied to New York City. There are several valleys of sufficient altitude named in his report that would afford also a sufficient superficial area, (fifty-two and a half square miles), if the waters falling in them were properly impounded as a catch basin to furnish 30,000,000 gallons per diem, the amount deemed necessary for the wants of the city in twenty-five years (1890) from the time of the survey. But unfortunately they are all in the great limestone basin, and the water would be so impregnated with lime as to render it comparatively unfit for mechanical as well as domestic use. Hence, he recommended the construction of extensive and very costly (the estimated cost being over three million dollars) works at Pendleton, to be composed of three receiving reservoirs, two filter beds and a large distributing or storage reservoir, to be located on Crawfish Creek, "about 3½ miles North-east of the existing reservoir." He further remarks that "between this point and the present works, we have not been able to find any ground upon which a reservoir of sufficient size could be constructed." The extreme height of the proposed storage reservoir was 204 feet above low water in the Ohio,

with a depth of 25 feet of water, and a storage capacity of 152,120,000 U. S. gallons. It will thus be seen that while the capacity is one-half greater than that of the Garden of Eden reservoir, its altitude is 34 feet less.

Mr. KIRKWOOD, as will be seen by his report, evidently had doubts as to the practical working of his filter bed plan; and hence recommended (*vide* Report, pages 45 and 46) that one or more of the Water Works' Trustees should visit England and France, for the purpose of consultation with "engineers of experience in the construction of filter beds." He, however, on page 44, remarks that, "I desire to repeat here that the filtering bed is not necessary, except as an economizer of time and space. With large reservoirs of deposit, of capacity to admit of the water lying still, under its worst conditions, from ten to twenty days, they would not, probably, be necessary."

Even should the plan of Prof. K. have been successfully carried out, it will be observed that the supply is still to be obtained below the mouth of the Little Miami river.

Another project has been suggested of the construction of a shaft or tower on the North bank of the Ohio, on the bottom lands just below the town of California, and by the usual method of pumping the water into a tank in the top of the tower, it would, by gravitation, flow into the reservoir; (it is by this process that the Garden of Eden is to be supplied from the present Water Works by pumping into a shaft 64 feet higher than the walls of the old reservoir.) The nearest point adapted for this reservoir, we believe, being the one selected by Prof. KIRKWOOD, in the basin of Crawfish, a distance of about four miles from the proposed tower. Greater altitude, however, can, no doubt, be obtained, than the proposed storage reservoirs of Prof. K., viz.: 204 feet above low water; indeed, we have the testimony of Mr. PHILLIPS in the accompanying Report that a reservoir could be constructed in Crawfish Creek 300 feet above low water.

In reference to this last plan we will merely remark that very grave doubts are justly entertained of the practicability of constructing a tower of sufficient strength to withstand the pressure necessary to supply a reservoir of this altitude, while the cost would far exceed any other plan suggested.

These, we believe, are all the plans that have been suggested for supplying the city of Cincinnati with water, except the one of Mr. JEFFREYS of using the sand bars of the river, below Jamestown, as filter beds, to supply wells below the bed of the river opposite the present works, a theory that has been abandoned in Europe, and proved a failure here.

The waters of the Upper Ohio river are gathered from the water shed of parts of Western New York, Eastern Ohio, Pennsylvania and Virginia, and according to Prof.

KIRKWOOD, "from districts of country where the geological formation is much of it primitive and mountainous, and at all events devoid of the limestones or other rocks, which render the waters escaping from them objectionable for domestic use." "Below Concord," says Prof. K., "they enter upon the limestone basin, in which the city of Cincinnati is situated, and after mingling with the rivers which rise in that basin, the Ohio water becomes, to a certain extent, deteriorated, not sufficiently so, however, as to make rain water in that sense preferable and necessary, but yet decidedly harder than the New York, Boston and Brooklyn waters."

In reference to the exact quality of water at Cincinnati, we further quote from Mr. KIRKWOOD, that "the region from which the soft water is gathered, approximates to an area of 69,743 square miles, and the limestone region which furnishes the hard water, approximates to an area of 7,955 square miles, being as nine to one nearly."

We may further remark that we have the testimony of Mr. JEFFREYS in his "Report on Water Works for the city of Newport," with reference to the quality of the water at the point at which we suggest as the best to obtain it, that "just above Jamestown, where the best water in the Ohio river, is to be found any where between its mouth and Portsmouth." The reasons for this are plain and obvious; the water, before it reaches this point, for miles, passes over a bed of sand and gravel, and the channel of the river is against the rock bottom of the Kentucky shore.

It now only remains to show that the ground at the locality that we have heretofore pointed out is adapted to the purposes sought to be attained.

By reference to the accompanying diagram and Report of R. C. PHILLIPS, Esq., well known to our citizens as a Civil Engineer, and as the former Superintendent of our city Water Works, it will be seen that the proposed Pump House is situated on the Kentucky shore of the Ohio, about one mile above the mouth of the Little Miami, and far away from and above any possible contaminating influences from that stream, and beyond any prospective reach of city sewerage. The river bank is a high bluff, by actual measurement 390 feet above low water in the Ohio; and, although, by the course of the river, some eight or nine miles from the present Water Works, yet in a direct air line it is not over four miles; and, indeed, is not more than that by the present ordinary routes of travel. The ravines at the point indicated, are deep, with very narrow mouths, and expanding basins, affording large areas for reservoirs, at but limited cost for construction. A series of these, in close proximity to each other, are admirably adapted as receiving and sedimentary basins, covering a surface of any

desired extent from 20 to 100 acres, with a varying depth from 25 to 200 feet, affording ample space to allow sufficient time for perfect sedimentation and purification of water before passing to the distributing reservoir.

Immediately across the divide, or high ground, begins the water shed of Taylor Creek, on a portion of which a distributing reservoir with a superficial surface of from 25 to 1,000 acres can be readily made with a varying depth according to the size that it may be determined to make it, of from 25 to 200 feet. The length of the connecting main pipe between this reservoir and the present works, would depend, of course, upon the size of the reservoir; but in any event could not be more than $2\frac{1}{2}$ miles.

From this reservoir, 380 feet high, the present Reservoir and the Garden of Eden could be supplied with pure water, and by a separate system of pipes, it will be seen from the Report of Mr. PHILLIPS, that nine-tenths of the hills surrounding Cincinnati can be fully supplied with water, while a separate system with a tower could be constructed to supply the few mounds that have a higher elevation.

Cincinnati would thus obtain the purest water within her reach, and that close by her doors, with a sufficient capacity to meet her wants for all time to come.

The question of cost, we regard as of minor consideration; and in the language of a high city official, "Cincinnati can afford to pay any sum to get pure water, and plenty of it." But even this will come materially within the estimates for other less capacious Works.

For a more specific detail as to the height of different localities, and a more comprehensive view of the ground proposed to be occupied, we beg to refer to the Report and Map of Mr. PHILLIPS.

There is but one other point to which we will refer, and then close. The Works, as proposed, are located in another State. A broad and liberal charter has been granted by the State of Kentucky for this very purpose; and the well known public spirit of the corporators, is a guaranty that it is at the service of the city of Cincinnati. If, upon experience, however, further legislation is deemed necessary, no one will question but that it can be obtained. The imperative necessity for our neighboring cities of Newport and Covington to obtain a supply of water, and their consequent interest in the success and permanency of this great work, is alone sufficient to secure the continued favorable consideration of the Legislature of the State of Kentucky. In addition to which, however, vested rights would be acquired under the charter, precluding the imaginary "somethings that might occur," which is the only argument that we have ever heard against the construction of the proposed works.

REPORT

OF

R. C. PHILLIPS, Esq.,

Civil and Topographical Engineer.

CINCINNATI, May 28, 1868.

T WRIGHTSON—*Dear Sir:* Herewith please find a sketch of the Ohio river from the present Water Works to a point opposite the town of California, together with some important points in the city, as well as in Kentucky. This sketch is drawn to a scale pretty accurately, so far as the known points are concerned; the location of some of the smaller streams and other points at a distance from the river in Kentucky are not so reliable, being from recollection, and hasty sketches and bearings of known points on the Ohio side.

The actual height of the points proposed to be used as embankments for the reservoir on Mr. KINNEY's land, is 390 feet above low water in the Ohio, and if the mouths of the two valleys shown were filled to this height, the surface overflowed thereby would be about 50 acres, and the greatest depth nearly or quite 200 feet. If water was filled to this level, it would flow to points so near the summit or water-shed between the valleys thus filled and those falling into Taylor Creek, that the cost of cutting through would not be very great; and from this reservoir pipes could be laid down the valley of Taylor Creek in almost a right line to the present reservoir and the distance would be $3\frac{1}{2}$ miles nearly. A reservoir could be constructed in the valley of Taylor's Creek, at any required height, less than 380 feet above low water, varying in area and depth from 300 to 1,000 acres and from 100 to 200 feet in depth, into which the water from the above receiving reservoir could be drawn, and from which it could be distributed to the three cities of Cincinnati, Newport and Covington. If a line of pipe be laid from the reservoir on Mr. KINNEY's place along the line indicated above, the entire length to the present reservoir, would be about $3\frac{1}{2}$ miles, and the distance from the proposed site of the proposed pump house to the old reservoir would be $4\frac{1}{2}$ miles nearly, and to the new reservoir about $4\frac{1}{2}$ miles, while the distance from a point opposite the proposed engine house on the Ohio side, by the nearest practicable route through Ohio, would be about $6\frac{1}{2}$ miles to the new reservoir, and about $7\frac{1}{2}$ miles to the present reservoir. This line of pipe must be laid under the Miami at or near its mouth—a task about equal to laying the other line under the Ohio. The above location of the pumping works is about as high the city as water any better than that obtained from the present works can be obtained, being only a short distance above the mouth of the Miami. The shore line on the Kentucky side is deep and rocky, while on the Ohio side it is

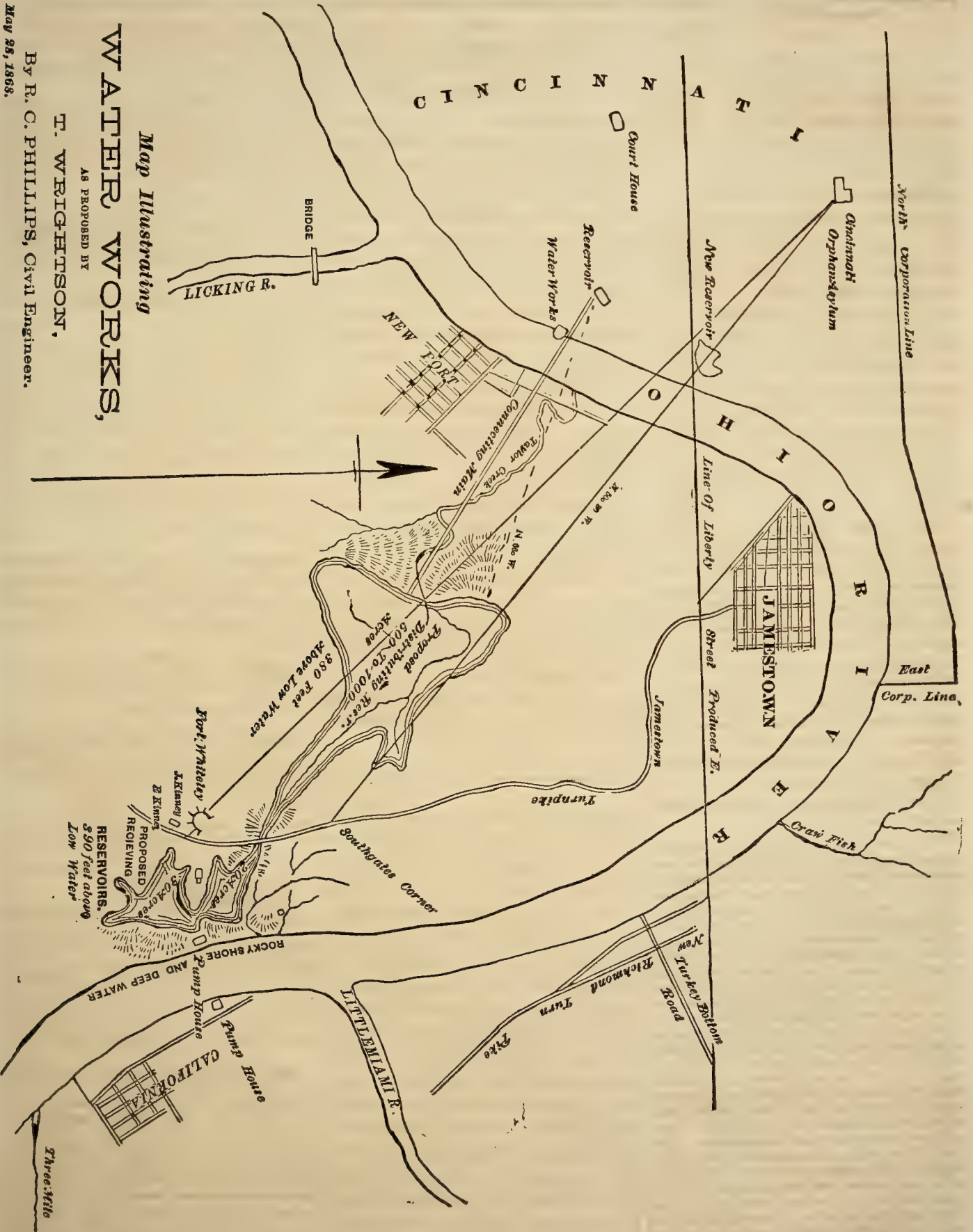
shallow, and in high water, clay, and in low water, sand bottom. If pumping machinery be placed on the Ohio side, the water must be forced through about 4 miles of pipe to a reservoir, say in Crawfish, and to an elevation of, say 300 feet, and from this by gravity about 3 miles to the new reservoir in the Garden of Eden, at an elevation of 238 feet above low water, or 64 feet above the present reservoir, or a column of, say 300 to 350 feet might be erected at the pump-house, and the water allowed to flow from that to the reservoir by gravity. In either of these cases the water would be delivered at the distributing reservoir nearly in the condition it is taken from the river, while the water pumped first into a reservoir of, say 50 acres area, and would remain in that long enough to settle almost or quite clear, while it would remain so long in the large and deep reservoir in Taylor Creek that it would be free from all sedimentary matter, when delivered to the pipes. As regards the cost of these several plans, the land in Kentucky could be had for a much less sum than in Ohio; the difference in length of pipe is very great, and the quality of the water would be greatly improved by remaining so long in the settling and distributing reservoirs.

The proposed reservoir, if made at an elevation of 390 feet, would deliver water at an elevation in the city of, say 380 feet, in small quantities, and the following are the heights approximately of the points named in and about the city: Summit of Mount Adams 361 feet above low water; residence of Hon. G. H. PENDLETON, Price and Liberty streets, 269 feet; L. C. HOPKINS' new house, Summit and Auburn streets, Mount Auburn, 466 feet—being the highest ground in the city; Clifton avenue, opposite Judge WOODRUFF's residence, 350 feet; intersection of Clifton and Ludlow avenue, (BRYANT'S corner), Clifton, 250 feet; residence of J. B. BENNETT, (formerly Judge McLEAN'S), Clifton, 382 feet; the intersection of the Montgomery and Harrison roads, on Walnut hills, (about the highest point in the village), is 413 feet above low water in the Ohio, and the whole village of Avondale would be below the proposed reservoir, and could be supplied from it; the water table of the public school house in Avondale being about 344 feet above low water.

It will be seen, therefore, that a reservoir 390 feet above low water would supply all of Cincinnati and its surroundings, with the exception of a few of the highest points.

I have made no estimate of the cost of these proposed improvements, or either of them; I have simply examined the matter with reference to its practicability, and given a few of the results that would be accomplished by such a work, and some facts about distances and heights.

R. C. PHILLIPS,
Civil Engineer.



The Dominion of Canada & the Northern Route to the Pacific.

East of the West end of Lake Superior the obstacles to a route through the Dominion of Canada amount almost to impracticability; West of that, however, they would have but few more difficulties to surmount than the proposed route through the territory of the United States. The leading statesmen of the Canadian Government are aware that their only hope of retaining the control of the vast interior basin of the Saskatchewan, a territory really worth more than all the balance of the If our Northern Pacific should be constructed Dominion, is by the construction of this road, with the energy that is characteristic of this country, and commensurate with our resources, the Canadian line will only be talked of, — never built — and the Territory commercially, socially, and finally politically, fall into our hands like a ripe pear.

Then why not push our line through at once. It will cost no more to build it to-day than it will two years from now, and the Government can just as well afford to *loan its credit* now for this purpose, as it can afford to do the same thing at any time in the future. True, somebody may make a little money by the enterprise; but then, the Government will make more than anybody else; besides, saving more money in military and transportation operations than it will loan its credit for. It is very poor economy to delay it a day; and, as to the financial ability of the Government to aid in improving and rendering valuable its own estate, the old maxim that "no man is so poor that he cannot give his note," is especially applicable in the premises, seeing that the road will unquestionably pay the note for them.

The following shows that the Dominionites are not asleep:

The route from Lake Superior to the Red River is attracting the attention of the new Dominion Government, and as a preliminary, Mr. Dawson, an Engineer, was sent to survey the projected line of communication. Mr. Dawson's report has just been made public. He recommends that the line should be opened in the cheapest and most expeditious manner at once. The total distance from Thunder Bay on Lake Superior to Fort Garry is 463 miles, comprising 332 miles of navigation water and 131 miles of land travel. Ninety miles of the latter would be between Fort Garry and the Lake of the Woods, where there are abundant means of transport, and twenty-five miles between Thunder Bay and Dog Lane, where horses and wagons could be easily provided. The principal part of the land carriage would therefore be at an end, with water carriage intermediate. The cost of opening communication with Fort Garry in this manner is set down at \$166,000 over and above the small appropriations made last year. The total trade of the Red River and Hudson's Bay Territory is estimated at \$4,000,000 annually, most of which is now done with the State of Minnesota.

Mineral Resources of Northern Mexico.

The *Scientific American*, of June 13, 1868, says that "the mineral produce of Mexico is remarkable, even when compared with that of the richest countries in the world. Her vast silver resources, however, are yet substantially in a state of embryo, the richest district probably in the republic—Sonora—being almost an unknown land. Mining is carried on in the crudest manner, the natives abandoning operations whenever the water level is reached, preferring the chances of discovering shallow deposits to the more laborious and undoubtedly more profitable explorations in deep mining. Time and experience will remedy this state of things, and another half century may find mining enterprise carried on with all the modern improvements and imported mechanical skill."

A line of railroad through Sonora connecting it with the United States would develop its resources in silver products, more than any thing else. The Port of Guaymas is one of the finest on the Pacific coast, and while it is nearer to all the great centers of trade in the Middle and Atlantic States, nearer even to Chicago than San Francisco, it is also one thousand miles nearer all South American ports, and would undoubtedly command the whole of the South American trade if it should have equal railroad facilities. The climate of the Pacific coast is proverbially salubrious, but that of Sonora is supremely so, and all the country wants is an influx of American enterprise and the scientific skilled miners of Germany with sufficient capital, and thus give employment and direction to the native laborer.

Snows on the Central Pacific.

The difficulties that are now being experienced in the transit over the route of the Central Pacific from snows are not those of an ordinary snow storm, that can be brushed off by the snow plow and scraper. They are of a most formidable character; and although it is contended that the engineering skill of the present age can surmount all obstacles—that nothing is impossible—yet we confess to lack of faith in its ability to furnish immunity against the terrible avalanches of either the Alps or the Sierras. The immense bodies of snow that slide down the face of these mountains have a force that is irresistible, and carry with them huge rocks that no other force in nature could move; these scoriates and plow up the granite face of the mountain till it becomes wrinkled as the countenance of old Time himself. What structure of man can withstand their power? All the "stockades of heavy timber" and "stone walls" in the world will be as "egg-shells" before this terrible engine of nature. "Stone walls" and "stockades" are about as efficient in stopping

the progress of an avalanche as would be the cooping of Mauna-Loa with hoop iron to prevent it from bursting its sides. In evidence of which, we give the following from the *Cincinnati Commercial* of June 7:

"The sheds which have been built over the track of the Central Pacific Railroad, in order to protect it from the snow slides, seem to be doing more harm than good, as, when the snow accumulates in heavy masses on the mountain side, and slides down, it mashes these sheds like an egg-shell, and fills the cut, no matter how deep, with broken timber and packed snow. It is now proposed to build solid walls of stone, at some distance from the track, to catch the avalanches of snow, and, when these barricades are filled, to let the overflow slide off on a steep roof covering the track. The expedient will prove a costly one."

KANSAS PACIFIC RAILROAD.—The *Arizona Miner* of May 9th, says: Mr. Harry Cusenbury informed us, while here, that he met the Railroad surveying parties of Schuyler & Holbrook, on the Little Colorado, on their way East. The health of the men was good, and they were in excellent spirits. Mr. Schuyler told Mr. Cusenbury that he had shortened and bettered the route from the Big to the Little Colorado, considerably.

☞ The Los Angeles and San Pedro Railroad Company have commenced the survey of their route. Work will be commenced upon the road at an early day.—*Arizona Miner*.

☞ Arizona contains within its boundaries 80,730,245 acres, one-third of which is covered with timber.—*Arizona Miner*.

MILWAUKEE AND ST. PAUL RAILROAD.—The annual report of the Directors of this Company (including the Milwaukee and Prairie du Chien line) states the business of 1867 as follows:

Earnings.....	\$5,683,608 59
Operating expenses (65 per ct.)	3,665,685 82
	\$2,017,922 77
Interest on the mortgage debt and the Prairie du Chien preferred stock.....	6,144,932 00

Net earnings after paying int'st,	\$872,990 77
Net after deducting interest and dividends on preferred stock.	309,428 33

The directors believe that hereafter they will be able to pay a cash dividend, commencing this year on the preferred stock, and also, they hope, on the common stock.

☞ The Rock Island quarrel has ended, and the books and papers are to be returned to New York. The April dividend of 5 per cent. will now be paid without prejudice to the usual dividend in October. The new Board of Directors of the Northwestern Road gives great satisfaction. Messrs. Keep, Sykes, James Sloan, Garner, and Sage, are among the most able railway managers in the country, and with their associates can be depended upon to administer the affairs of the road for the benefit of its permanent holders. Mr. Keep will probably be President.—*Tribune*.

Railroad Movements.

Nearly all the Northwestern railroads are managed and owned in New York city, and while there is a great deal of corruption in the management, it is, perhaps, to be regretted that Southwestern roads are not under similar control. Those who have given attention to recent movements must have noticed the efforts that are made by competing managements to extend their lines to the Northwest, so as to secure the business already created, and to develop new trade. Where money is needed it is promptly secured, sometimes fairly but often unfairly. There are now two great competing lines from Chicago to the West, viz: the Rock Island and Northwestern. The latter had two classes of stocks, common and preferred. Less than two years ago the former sold at 25 cents on the dollar, and the latter at 60 cents. Yet the company kept on building and consolidating roads until it reached Omaha, not caring, seemingly, how stockholders fared. No dividends were declared on the common stock, and whenever the money was needed for constructing new roads or adding to the rolling stock, dividends on the preferred shares were passed. Thus the corporation has been built up until its earnings increased from \$6,114,567 16 in 1864 to \$11,632,739 26 in 1867, and the revenue for the first five months of the current year shows an increase of 26.38 per cent. over the corresponding period in 1867. At this rate, the earnings for 1868 will exceed \$15,000,000, against \$6,114,567 16 in 1864. The President of the road now announces that the Company will hereafter pay dividends on all its stocks. Recently, a dividend of 10 per cent. in scrip was declared, and it is understood the new Board of Directors will soon declare a cash dividend of 5 per cent. New York parties, seeing what the outcome of this property would be, commenced buying up the stock at low figures; and of the \$10,000,000 outstanding, these now control \$30,000,000. The same parties control the Michigan Southern Railroad, extending from Chicago to Toledo. Vanderbilt sought to get the control of these great lines, but he failed. He did, however, secure the New York Central, Lake Shore and Cleveland & Toledo. The fight between Vanderbilt and the Erie management, was for the control of the roads leading from Toledo to Omaha. The former got as far as Toledo. The Erie folks then proposed to build a broad gauge from Akron to Toledo, and thence to Chicago lay a third rail on the Michigan Southern. Contracts to this end were made, but the project seems to have fallen through, although the Erie managers secured near \$5,000,000 for the purpose by secretly selling stock when it was up to 72@75. It is understood that Drew went back on his associates and compromised with Vanderbilt. Now, so it is reported, the Michigan Southern is to be consolidated with the Cleveland & Toledo and Lake Shore roads. The Michigan Southern is owned by the same party who control the Northwestern road. These parties bought the stock of the Michigan Southern 20@30 per cent. below present prices, applied the earnings to the improvement of the property, until the road is now able to earn a dividend as large as that of the Cleveland & Toledo or Lake Shore, and now they consolidate on equal terms with these roads, the stock of which is selling at about 109. This is the way the heavy railroad capitalists of New York amass large fortunes. While working out their plans, thousands of speculators in the

stocks have been ruined, but this did not trouble such men as Vanderbilt and Keep.

Thus the Vanderbilt party have obtained control of lines of roads, of uniform gauge, and all earning large dividends, extending from New York to Omaha, and there connecting with the Pacific road.

But these powerful capitalists, not satisfied with having this great chain of roads, sought to prevent competition. The Rock Island road runs, to some extent, parallel with the Northwestern from Chicago; and it desired to reach Omaha also. To prevent this the Northwestern party bought a majority of the stock in the Rock Island road, and was thus ready to take the management at the first election. The Rock Island men discovered this, quietly issued 49,000 shares of new stock, and as quietly sold it in the New York market, at an average of 98c. The Northwestern party then rushed into Court, and a legal wrangle followed, of which we will not stop to write. Suffice to say, the Rock Island party was successful, the sale of the new stock has been confirmed, and the road is to be built to Omaha.

While New York has thus been working for the control of the Northwestern trade, the Pennsylvania Central was gathering up the odds and ends of railroads Westward, until it has secured first class connections with Cincinnati, St. Louis and Chicago; but now it is stated that New York parties have been buying up the stock of the Pennsylvania Central for the purpose of getting the control of that great line, thus aiming at a still more powerful railroad monopoly than the enterprises referred to would secure.

But while all this has been going on, the great railroad manipulators of New York have lost sight of the Southwest. Here is a field equal to that of the Northwest, which has not been touched. The construction of a road from this city to East Tennessee would secure the trade and travel of a large portion of the Southern States. It would be the shortest line between the South and the Eastern seaboard, and there could, therefore, be no successful rival. It would also be the shortest route between the South and the North. These are advantages which cannot be overestimated. Yet there is no movement toward the building of the Southern trunk line, and we can only attribute it to the fact that the roads centering at Cincinnati, with the exception of the Ohio and Mississippi, are not managed or owned in New York, and their shares are seldom called on the New York stock board. Little Miami, Cincinnati, Hamilton & Dayton and Indianapolis & Cincinnati shares are chiefly held here and hereabout, and their owners have no idea of doing any thing except to wait for a dividend. To these we commend the experience of the Northwestern roads, and we say to such stockholders that, unless they go and do likewise—that is, build the Southern road, they will wait a long time for a dividend—that is, a cash dividend out of money actually earned. It is a striking fact that every railroad running out of this city, has been compelled to pass its dividend; and, as intimated, we believe the suspension must be permanent unless we avail ourselves of the advantages which our geographical position affords, by building a short line to the South, and bringing the trade and travel of that country this way. If our roads were owned in New York this would be done promptly; and if our citizens who own our railroads are not disposed to spend money to make their investments productive, they had

better sell out as quickly as possible. The doing nothing policy will result in the eating up, by a gradual process, what remains of Cincinnati railroad property.—*Cin. Gazette.*

RAILWAY FROM PORTLAND TO OGDENSBURG.—

The people of the city of Portland are evidently in earnest about a railway project which has been engrossing their attention for some time. They have just voted by nearly two thousand majority to take stock to the amount of \$750,000 in what is known as the Portland & Ogdensburg Railway. The proposed railway is to furnish the shortest possible route from Portland to the lakes. It is proposed to cross New England in as direct a line as possible, passing through the notch in the White Mountains, and through Northern Vermont to Rouse's point, where, of course, it will connect with the existing railway to Ogdensburg. Thanks to "the notch," the grades will not be very heavy, even in the neighborhood of the mountains, and sanguine persons talk of building the road for less than thirty thousand dollars per mile. The subscription voted by Portland is to be supplemented by subscriptions from other towns along the route, and a good deal of money has already been voted by towns in Vermont toward the portion of the road to be built in that State. The advocates of the road seem to have the fullest confidence that the money necessary to carry out their scheme can be raised.

Should this road be built Portland would command much of the trade which now goes to Boston. The line would also prove a powerful rival to the Grand Trunk Railway of Canada. By the proposed route, the distance from Portland to Ogdensburg is only 330 miles, or 70 miles less than the distance from Boston to Ogdensburg by the shortest existing route. By the Grand Trunk Railway, it is 410 miles from Prescott (opposite Ogdensburg) to Portland, or 80 miles further than by the proposed road. Even Montreal will be 30 or 40 miles nearer Portland by the new road than by the Grand Trunk. Portland is nearer to Europe than any other important port in the United States, and if it can secure direct connection with Ogdensburg by the proposed road, it will have a second advantage over its great rival, Boston, and cannot fail to secure trade enough to pay several times over for the risk taken in subscribing stock to the railway.

CROPS.—The crop advices from the South as given by parties of experience are very encouraging, and, should no accident occur, there will be realized from the agricultural industry of this section in 1868 a sum of money which will go far toward restoring the prosperity of the South, and in bringing the foreign exchange largely in our favor. The wheat crop of the extreme South is being harvested, and in quality and quantity is satisfactory. The corn never looked better. Cotton is also reported as very promising, and a crop of 3,000,000 bales is considered reasonably sure. The cane is also in fine condition, and 100,000 hogsheads of sugar is reported in place of 40,000 in 1867. At the North, in spite of the wet weather, the leading crops are promising. Hay was never more promising, and, with grain, is reported upon favorably. There is still time for corn and vegetables of all sorts, the whole yielding to the agricultural interest a mass of wealth which insures prosperity in all departments of trade. The reports from the crops in the wheat growing territory of the North-west

are favorable in the mass, and every line of road from the Missouri River to New York promises in the Autumn to have more than it can do — *Tribune*.

The Milwaukee *Wisconsin* says Mr. Daniel S. Wells, of that city, has taken the contract for building the extension of the Yates City and Lewiston Branch of the Chicago, Burlington and Quincy Railroad, from Lewiston, South. The extension is about 40 miles in length, and will be ready for the cars about the 1st of January next.

The Chicago, Rock Island & Pacific Railroad was, last Saturday, completed to and across Raccoon river, fifteen miles west of Des Moines, and will be pushed to the Missouri in double quick time.

The receipts of the Western Union Railroad Company for the week ending June 7:

	1868.	1867.	Inc.	Dec.
Freight	\$12,066 92	\$13,373 04	\$693 68	.....
Passengers	3,653 00	3,509 95	143 05	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail	375 00	375 00	.....	.....

Totals.....\$16,444 92\$15,577 99 \$66 93

Receipts from January 1 to June 7:

1868.....	\$202,155 00
1867.....	217,727 28

Increase.....\$44 877 72

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This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

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SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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J. H. WELLS, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAUREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
[Aug 2, 1866.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts. Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at north-east corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15 foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 7:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12:15 p. m.

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 4:30 p. m. Without change of cars from
New York to Harrisburg.

5:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:30 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:40 a. m.; Allentown at 6:00 a. m.; Easton at
7:00 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton
at 1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

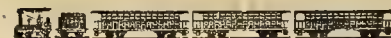
2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

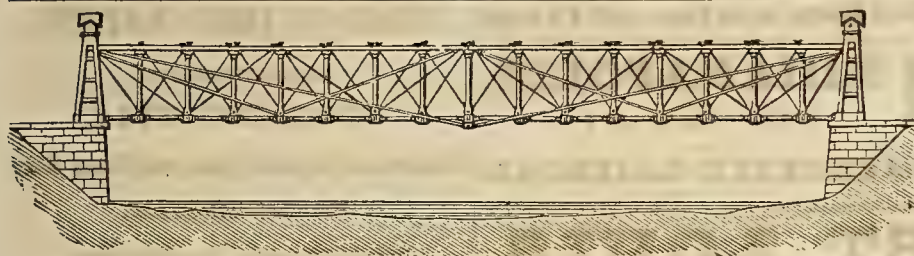
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enable us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
my 11 Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION!

47 West Front St., Cincinnati.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double ply with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for

Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT.

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg, Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower than the cost by any other line, as recently charged; and the rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the *ONLY ROUTE* by which passengers can procure through tickets and through checks to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore.
J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.

Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI

—AND—

LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7:00 am	10:50 pm
Indianapolis and Cairo Express.....	7:10 am	2:30 am
Cairo and St. Louis Express.....	2:20 pm	4:08 pm
Springfield, Quincy and St. Joseph Express.....	2:20 pm	4:08 pm
Chicago Lightning Express.....	7:15 pm	11:30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8:50 pm	6:15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10:10 am	8:35 am
Connersville and Cambridge City.....	4:00 pm	9:15 am
Lawrenceburg.....	4:45 pm	2:20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the L. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

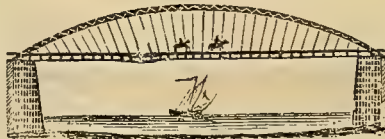
MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works. June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at time for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, JUNE 18, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:30 P. M.	8:00 P. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:25 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:05 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 P. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

RAILROADS TO THE PACIFIC.

ALBERT D. RICHARDSON

VS.

KANSAS PACIFIC RAILROAD.

HOW THE MILK GOT IN THE COCOA NUT.

The great National route across the continent composed of the Union Pacific Railroad and the Central Pacific Railroad of California, is a monument of engineering skill and talent, unsurpassed in grandeur of conception or daring brilliance of execution, and has been constructed with an energy truly characteristic of our race and country, so far surpassing any other enterprise of this or any other age, that any calumny that might be uttered against it would but add lustre to the fame of those who are its leading spirits and control its destiny. There is no obstacle in its pathway that they will not eventually overcome. Even the difficulties presented by the avalanches of the Sierras, and the deep snows of the Medicine Bow will all, in time, be overcome—even if it has to be done by arched masonry “as solid as the foundations of the earth.” Still, there are few persons that can at present so entirely abstract their nerves from the surroundings of Cisco-lian dangers as to enjoy the immensely pleasurable idea of having the *protecting roofs* of the track “crushed like egg-shells” on their heads by snow slides computed to weigh 5,000,000 tons; neither is the idea that traffic is to suffer a three or four month’s interruption compatible with views of strict commercial economy. Still we say these will all *eventually* be overcome; yet they exist as obstacles not surmounted. Although not a sufficient argument against the Central as a route, yet they are enough to condemn it as an *only* route between the Atlantic and Pacific.

We will further remark that it was well understood and we so published twelve or fourteen years ago, both from Government Reports and the reports of the thousand and one explorers of our mountain ranges, that the snow troubles of the Central route were of the most difficult character, and would present almost insuperable barriers to traffic for at least *one-third of the year*. Still, notwithstanding this well known characteristic, Congress for *other* good and sufficient reasons that had a paramount weight at the time in our National Legislature, arising out of the disturbed and uncertain condition of our Nationality, saw fit to make all other routes and interests point to this one as the *only* route through a portion of our country, where it possessed fewer attractions and more objections than any other.

Of this, we have no complaint to enter, neither are we disposed to find fault with the

wisdom of Congress in allowing one of the contemplated Branches of this great “Trunk Line,” after the cogent reasons above alluded to no longer existed, to divert its course and become an independent line, and thus develop another portion of our country, the resources of which will unquestionably compare favorably with any other route across the continent.

We are, however, disposed as Journalists, and as having worked longer and done more to educate the public mind and create the sentiment among the people and with the press in favor of Government aid in the construction of railroads to the Pacific through the Public Domain, than any or all other Journals, to find fault with the Union and Central managers, whose truly great and meritorious enterprise is created by the munificence of Congressional aid, for their systematic opposition to the Kansas route, an enterprise that has intrinsic merits equal, if not surpassing those of its own.

It would almost appear from the tone of the following article fathered by ALBERT D. RICHARDSON, and published in the *Tribune*, that it was prepared at the instigation of a well known “advertising agent,” a sort of “middle man” or “go between” those who desire to “advertise” their goods and “the press.” Who is the “medium” by which the “press” with its “thousand tongues” has sung the “falsome praise” in paid for articles and advertisements, setting forth the resources, “with throats of brass and adamant lungs,” of the “Central route,” and the wonderful value of “its bonds” over all other “securities,” even to the disparagement of the “Government credit.”

If this is a correct supposition then has the *Tribune* been fooled, and an article has slipped into their columns for which somebody else got the pay other than the proprietors.

No matter, is it not *modest* to assume to lecture Congress, to correct its blundering judgment, and talk so glibly about the “effrontery” of others for daring to ask to be made equal with the Central routes, and about their “breaking faith with the Government,” and to dictate to Congress “where” and “how” to spend the People’s money.

It requires a stretch of the imagination to believe, (yet it is perfectly natural”) that the managers of the Union Pacific sanction such means to swell their already flood-tide fortune. It will be observed that to disparage the Southern or Kansas route, “falsome praise,” (and although it is but justice, and what we have repeatedly asserted,) is lavished on the necessity for and resources of the “Northern route.” How wondrous are the ways and creatures of Providence. It is said to be the universal custom of the larger varieties of the snake family “to beslayer” their prey preparatory to the efforts of “degultion.” We have too much confidence in the common sense and patriotism of Congress,

as well as in the intrinsic merits of the "Northern route," as a whole, extending from the "Lakes to Puget's Sound," to entertain a single fear of the result; yet it will not be from the lack of effort on the part of the Central, that it will not be "engulphed," as the propositions from them looking to that result now before Congress sufficiently demonstrates.

Notwithstanding his bitter opposition, Mr. R. admits all that is claimed, and what will be deemed sufficient reasons by the people to warrant Congress to provide for the construction of *this* route, even although its Western terminus should be the same as that of the Central. Mr. R. says, "every word that Mr. Wilkeson says about the beneficial effect of railways in settling our new Territories, developing our mines, and solving the Indian problem, is true in its general application. The 35th parallel route, too, is an easy and good one. It connects with the San Joaquin Valley of California, one of the best grain growing regions, and leads to one of the richest silver-bearing districts on the globe." Why, that is almost all that is claimed in favor of the construction of the Kansas route, except what Mr. R. could have added with great truthfulness, that it can be operated without danger from snows or avalanches all the year round, which the Central can not; that it will also develop another wide belt of our common country, the resources of which throughout its entire length are unsurpassed by any other portion of the "globe" of equal extent traveling across continents.

So as not to render ourselves liable to the charge of doing injustice to Mr. R., we publish his article in full:

THE KANSAS UNION PACIFIC RAILWAY SCHEME.
To HORACE GREELEY:—

SIR: You publish and indorse Samuel Wilkeson's ingenious advocacy of the scheme for issuing Government bonds, to the amount of several millions of dollars, in further aid of the Kansas branch of the Union Pacific Railway, that it may turn southward into New Mexico, and form part of a second trunk line to the Pacific. Mr. Wilkeson gives plausible reasons in favor of the project, but are not the following objections to it strong and insuperable?

1. It is too early to endow a second road across the Continent. Upon the Central line, now building, the locomotive will run from Omaha to San Francisco in twenty months at longest, perhaps in thirteen. Congress has yet much to learn about the wisest, safest, and most economical mode of assisting these roads, and can only learn it from the practical working of the first after its completion. Beside, the Central will be amply sufficient for our trans-Continental business for the next three years.

2. Even if the time were come to aid a new road, a Northern line has the first claim. From the Upper Mississippi to the Pacific stretches one of our richest belts of territory, already largely populated, and containing heavy and rapidly-growing business interests. Minnesota has immeasurable forests of excellent pine, and the best wheat-growing region

of the United States. Montana holds some of our richest gold and silver mines, and has good agricultural capacity. Idaho turns out several millions of dollars of the precious metals every year. Oregon and Washington have exceedingly valuable mines of gold, silver, iron and coal; fields that produce grass, grain and fruit in wonderful profusion, and the richest forests of pine, spruce, cedar and fir in the known world. Puget Sound, the natural terminus of a Northern line, and the largest and best harbor on either coast, already enjoys an enormous lumber trade with every quarter of the globe. These great interests ought to have an outlet to both oceans. Moreover, a road along our Northern frontier would do more to assimilate British America and hasten our acquisition of it than all Seward's diplomacy or all McCulloch's treasury notes. No company has yet appeared sufficiently representing the important local interests along the route to justify granting a subsidy, but within the next year or two one will doubtless be formed. Clearly, our second road to the Pacific should be a Northern one.

3. *The Kansas line is breaking faith with the Government.* It was originally endowed as a branch of the main or Nebraska stem of the Union Pacific Road, to connect with it at the 100th meridian (near Fort Kearney,) and give Kansas, Missouri and other central States direct connection with it. But, two years ago, it obtained permission from Congress to join the trunk line 300 miles further West, and near Denver, agreeing to build the last 200 miles from its own resources. The sole condition upon which it was allowed thus to change its route and retain all its subsidy, is explicitly stated in the words of the law which authorized it:

Provided, That said Company shall be entitled to only the same amount of the bonds of the United States, to aid in the construction of their line of railroad and telegraph as they would have been entitled to if they had connected their said line with the Union Pacific Railroad on the 100th degree of longitude, as now required by law: And provided further, That said Company shall connect their line of railroad and telegraph with the Union Pacific Railroad, but not at a point more than fifty miles westwardly from the meridian of Denver in Colorado.

Now, after receiving and expending the Government subsidy and utterly neglecting to fulfill their contract, this company have the effrontery to demand of Congress: "As we have broken our express agreement to build on to Denver from our private means, issue us eight or ten millions, more or less, in new bonds, to enable us to turn southward over the desert into New Mexico, and thence across the mountains toward California, because it would be a pity to disperse our laborers and stop our work." This is quite like the young Frenchman who, convicted of murdering his father and mother, and asked by the judge what he had to urge why sentence of death should not be passed on him, replied: "I trust that the court will be merciful to a poor orphan!" If reluctant to disperse its laborers, why don't the company live up to its agreement and employ them in completing its line to Denver?

4. This road is 400 miles too far north to be the proper eastern end of a line which is to follow the thirty-fifth parallel from the Rio Grande to the Pacific. As far as completed—the entire length of Kansas—it runs within 200 miles of the main Pacific Road of Nebraska, and is nearly on the fortieth parallel. Now it is proposed to make a sharp elbow

southward, over barren, uninhabited plains, for 400 miles, to Albuquerque, New Mexico. There is no natural trade whatever on this north and south line. Private capital would not build a railway upon it for the next forty years. A road from the Pacific along the thirty-fifth parallel should obviously come from the Rio Grande directly eastward, through Texas and the Indian Territory—the very richest body of land on our Continent, and soon to be open to settlers—to Fort Smith, or some other point in Arkansas. Thence its main stem should continue direct to Memphis, with a southern fork to Vicksburg or New Orleans, and a northern one to St. Louis, leading through the rich Lead Region of Missouri. Why should this Kansas line have a subsidy to make it a Continental thoroughfare in palpable defiance of geography, the laws of trade, and the interests of half a dozen States?

5. It is less entitled to aid than several other roads starting from the Mississippi and already running for a considerable distance in the general direction of the thirty-fifth parallel. These roads have been built from private resources and from State aid, without a dollar of Government bonds. The Southwest Pacific already extends nearly 100 miles from St. Louis toward Springfield and Fort Gibson; and the Cairo and Fulton, the Memphis and Little Rock, the Vicksburg and Shreveport, and the New Orleans, Alexandria and Fulton—have completed many miles of their respective roads. Why give a company, which has not built a yard of its main line toward the Pacific without Government aid, such an enormous, unjust preference over struggling roads which have earned a right to recognition? Do Congress and THE TRIBUNE propose to put a premium on lack of enterprise because it is coupled with ravenous fondness for the public crib, and roars its demand for "More" "with throat of brass and adamantine lungs?"

Every word that Mr. Wilkeson says about the beneficial effect of railways in settling our new Territories, developing our mines, and solving the Indian problem, is true in its general application. The thirty-fifth parallel route, too, is an easy and good one. It connects with the San Joaquin Valley of California, one of our best grain regions, and leads to one of the richest silver-bearing districts on the globe. At the proper time, under proper restrictions, probably a road along it ought to receive Government help. But the public aid should not be frittered away upon 400 or 500 miles of north-and-south road, which have no natural or legitimate connection with it as a main line, and neither primary nor secondary claims as a branch. It is the proper route for a Southern Pacific Railway or for none at all. Then why not make it a genuine Southern road, and give Northern Texas, the Indian Territory, Southwest Missouri, Arkansas, Memphis, Vicksburg and New Orleans the benefit of it! Trunk lines across the Continent are franchises too important to be granted to those who clamor loudest for them, regardless of the public interest, the merits of other organizations, or the claims of almost a quarter of the Continent.

ALBERT D. RICHARDSON.

New York, June 12, 1868.

CHICAGO & ROCK ISLAND R. R.—It is now conceded that the Rock Island road will steadily push for Omaha, and is now laying its track in that direction at the rate of half-a-mile daily, and intends, as soon as possible, to get its share of the Pacific trade.

Indian Problem--How Solved.

Moral Effect of Pacific Railroads.

Economy to Construct them.

That Indian wars are troublesome and expensive the experience of our Government has fully demonstrated, and that the usual method of "fighting Indians" is a burlesque, generally costing from \$100,000 to \$1,000,000 and the lives of from ten to twenty white men for every Indian killed. This is the natural result of their peculiar mode of warfare.

We have, on a previous occasion, suggested as the only true policy of conducting a war of this character, to use *Indians* to fight *Indians*,—"Greek" would then "meet Greek;" and, as we asserted, if both were killed, we could better spare them by the hundred than the life of one single white man. In our previous articles we fully discussed the morality as well as economy of this method of doing the Government business, and think we so stated the case as to remove any conscientious scruples on the one hand, as well as clearly demonstrating that the cost would not be more than one-half. But it was not our intent in the present article to discuss *this* view of the subject.

That the Indians are not *always* to blame for the hostilities, we are fully persuaded; but the following presents such a natural reason, and one that is so continually recurring that it must almost meet with the approval of the Government. The telegrams to the daily press furnish the following:

THE INDIANS—ORIGIN OF THE DIFFICULTIES.—ST. LOUIS, June 10.—Indian hostilities have again broken out along the Missouri River. Steamboats have been fired upon, stock has been run off, and several whites have been killed. Gen. Terry was at Fort Price, June 3. Father Desmet had gone out to persuade the Indians to come in and make peace. It is reported that they reject all proffers of peace, saying that *in time of peace they starve; but when at war they get what they require from the whites.*

This is a forcible and succinct exposition of the incentives that actuate the "Noble Red Man,"—they are perfectly natural, and are the same as govern the conduct all other equally "noble" vagabonds, who are unfitted by their *natural inclinations* to labor, but prefer to steal. Indeed, every intelligent person is well aware that the old Spartan maxim is the "law of the land" throughout all the nations and tribes of these "untutored Sons of the Forest," viz: that "the crime is not in the act of stealing, but in getting caught." This is as assiduously taught to-day in every wig-wam, and gives as much zest and lustre to their tales of valorous deeds, as it did with the Greeks in the days of Lycurgos.

It is not supposable that *murder*, merely for the sake of killing, is the primary object of the many brutal outrages that are committed by Indians. Indeed, the reason, as

above given to FATHER DESMET, is the only true solution of such conduct as is depicted in the following paragraph from the *Arizona Miner*, of May 9, it shows the education of these "gentle savages;" although we deem the Apache a little lower in the scale of nature than any of his fellows, and hence consider his claim for the sympathetic

"Lo! the poor Indian," as pre-eminent. The *Miner* says:

"ANOTHER OUTRAGE BY INDIANS. — Sunday morning last as two Mexican women were engaged in weeding or watering a garden in the outskirts of town, they were surrounded by a party of Indians. One of them had sufficient presence of mind to run, and made her way to town, at double-quick, followed by two Indians who tried to cut her off, but failed. The other, upon seeing the Indians, became frightened, lost all control of herself, and of course fell into the hands of the savages, who carried or dragged her to the rocks, beat her with a club and lanced her. During her fright the woman gave birth to a child, which the brutes, she says, picked up on the point of a lance and carried off. She also says, that among the Indians were two of her countrymen, to whom, no doubt, she owes her life. The Mexicans asked her various questions in relation to the troops, the town and the fort, and said that the Indians were numerous in this vicinity, and were determined to take the town."

That was certainly a gallant feat, surpassing in heroic deed the "slaughter of the Innocents" at Bethlehem, and although it does not display the great military genius that was evinced by *Francisco*, with his *one hundred braves*, when he ambushed and killed Wm. WRIGHTSON and HOPKINS, near *Fort Buchanan*, for the avowed purpose of obtaining their riding animals, yet it is of sufficient merit to elicit admiration for their "noble" and guileless character.

There is another class, however, to which the New York *Tribune* draws attention in the following manner.

"Interested parties are making industrious attempts to revive the Indian war on our frontier. An Indian war is "nuts" to the border settlers. The regiments sent against the Indians usually desert, and add to the mining and agricultural population. The horses and mules we send out supply both the Indians and settlers with cheap animals already saddled. The supplies we send or purchase for our armies make a market for those who have produce to sell, and help to relieve the wants of those who have nothing to buy with. The demand for transportation and labor is a handsome plum for the settlers. For every Indian we kill, half a million dollars are taken into the Territories and scattered among the settlers. It is believed to be an agreeable recreation to those whose tastes are educated to the business to hunt Indians during the summer months—indeed, a trifle more exhilarating than hunting deer or buffalo. It is somewhat expensive to the Government. Several expeditions have traveled from five hundred to fifteen hundred miles without being able to kill a hostile Indian, and have been under the unpleasant necessity of dispatching a few peace Indians by way of getting a taste of blood. The favorite theory among a large class of border settlers is that

there are no peace Indians, and hence that the trifling point whether an Indian belongs to a friendly or a hostile tribe is of no consequence."

It is truly lamentable that *white men* should imitate the "noble" example of these "red skinned gentlemen;" but they do, and it appears they regard it, according to the *Tribune*, as pastime—fine fun! There is no denying it, for there are the facts, telegraphed all over the land, and fairly stated by the *Tribune*.

WHAT IS THE REMEDY?

Will the Government do its best to *gratify* both these classes of "noble" representatives of the very worst phase of humanity? If either of them were in the bounds of law they would speedily be hung; but, as "catching is before hanging," the latter is, on this occasion, omitted; while the former is burlesqued by generally sending men on foot after those who are well mounted.

We have one suggestion to make right here. That is, supposing the Government will have to do the "fighting" another year, but if they will expend an equal amount of *credit* on the construction of the Northern and Kansas Pacific Railroads, (which the roads themselves will pay,) as the Government did last year, *cash* for the "fighting," and will repeat the experiment for three years, that every year the cost of Indian wars will be less, and after the completion of the roads, save, at least, four-fifths of the "fighting" money, and not loose any thing by the *loan of credit*. This will be *true economy*, and is unquestionably the most humanitarian view that can be taken of the situation. As evidence that the result we claim will follow, we cite the views of Gen. SHERMAN before the Senate Committee and the following letter of Gen. PHIL. SHERIDAN:

HEADQUARTERS DEPT OF MO.,
FORT LEAVENWORTH, May 2, 1868.

GEN. U. S. GRANT,
COM'G ARMY OF THE UNITED STATES,
WASHINGTON, D. C.

GENERAL:

The Kansas Branch of the Union Pacific Railroad will, in a short time, be completed to a point about thirty miles distant from Fort Wallace. At this point the Government subsidy ceases and the work ends.

I would respectfully urge on you the importance of the Government continuing its aid, at once, as far as Fort Wallace, and afterwards to Fort Lyon, C. T. The road could be finished to Fort Wallace about July 1st, and to Fort Lyon in time for the spring freight to New Mexico in 1869. I know that, pecuniarily, it would be to the advantage of the Government to help this road; certainly as far as Fort Wallace, and also to Fort Lyon. But, in addition, it almost substantially ends our Indian troubles, by the moral effect which it exercises over the Indian, and the facility which it gives the military in controlling them. I have not had a single depredation in my Department since I assumed command, and I have the greatest desire to maintain this peaceful condition of affairs. I have made a great deal of personal exertion by visiting nearly every post in the section of

country in which the Indians were hostile last year, and, in all interviews with the Indians, was led to believe that we may be able to preserve the peace the coming summer. No one, unless he has personally visited this country, can well appreciate the great assistance which the railroad gives to economy, security and effectiveness, in the administration of military affairs in this Department.

Yours, truly,

P. H. SHERIDAN,
Maj. Gen. U. S. Army.

NEW RAILROAD GUIDE.—Among a large number of railroad men there has long been a feeling that the old Railroad Guides were deficient in many respects, and did not come up to their views of their wants and the wants of the traveling public. Besides, many felt aggrieved at the publishers for either real or imaginary causes of complaint for unfairness and exorbitant charges, etc.; and hence, there has been a sort of "casting about" for some time past for some other avenue to convey correct information to the traveling public, which has finally resulted in the "TRAVELER'S OFFICIAL RAILWAY GUIDE," Edited by EDWARD VERNON, Esq., and published by H. H. WHEELER & EDWARD VERNON, both of whom are experienced railroad men, and should fully understand what is necessary to meet the wants of a "perfect Railroad Guide." We judge, from a leading article of the Editor that he has already met with something other than "roses in his path." The owners of Appleton's Guide, it appears, have a conceit that no other railroad Guide ought to be published but their's; or if any one should have the temerity to do so, that it must not contain either the "facts of figures" or the wonderfully "straight lines" so plain that "wayfaring men though fools" are expected to understand the "short lines" on all the "Maps" in their elaborate work. That the "Appleton's Guide" has been to the APPLETON'S, a "good thing," no one familiar with business, can doubt; and it is pity, for them, that any one should interfere with it. Nevertheless, we can see no reason why we should not have a "Guide" in every town in the country, if anybody can either make it pay, or pay for making it; or even, on a pinch have two issued from the same "great centre." The "American," or Dinsmore's "Guide," has lived and existed both before and since the appearance of its overshadowing neighbor, but appears to have been "absorbed" by the "Traveler's." Well, we can only say, that we hail all efforts of improvement with "God speed," and wish the "boys" all the "good luck" they have ever dreamed of; that their "Guide" may "Travel" as no "Guide" has ever *Traveled* before; that while the "Traveler" shall be safely and truly "Guided" in his wanderings by their "Guide," that they, also, may find it a "Guide" that is safe to follow,—leading them like the "tide in the affairs of men that leads to fortune."

Milwaukee & St. Paul Railway.

The fifth annual meeting of the stockholders of this road was held at their principal office, in Milwaukee, on the 8th inst., at which time the following named gentlemen were elected Directors for the ensuing year:

Alexander Mitchell, of Milwaukee; W. S. Gurnee, of New York; Russell Sage, of New York; Fred. P. James, of New York; N. A. Cowdrey, of New York; Selah Chamberlain, of Minnesota; S. S. Merrill, of Milwaukee; E. P. Wesley, of New York; Julius Wadsworth, of New York; Joseph Rudd, of New York; James G. Garner, of New York; Henry Keep, of New York, and James Buell, of New York.

It will be seen that all the members of the old Board are re-elected with the single exception of Mr. H. C. Sumson, of New York, who declined re-election, and was accordingly replaced by Mr. James Buell.

There was represented, on this occasion, stock to the amount of about \$18,000,000, out of a total of \$20,800,000. Some of the most prominent railroad men of the Northwest were in attendance.

A ballot taken for President resulted in the unanimous election of Alexander Mitchell, of Milwaukee, to that office. An adjournment was then made until noon of the 13th inst. It is supposed that, with the exception of the Vice-President, Walter S. Gurnee, of New York, who has requested to be relieved from his position, all the old officers of the company will be unanimously re-elected to their old offices. The officers of the company for the coming year, therefore, with the exception mentioned, may be stated as follows:

Pres't—Alexander Mitchell, of Milwaukee.

Gen'l Manager—S. S. Merrill, of Milwaukee.

Secretary and Treasurer—Alonson Cary, of Milwaukee.

Assistant Secretary and Transfer Agent—Charles P. Gilpin, of New York.

Attorney—John W. Carey, of Milwaukee.

Superintendents—D. A. Olin, H. C. Atkins, L. B. Rock, and D. C. Shepard.

General Passenger Agent—A. V. H. Carpenter, of Milwaukee.

General Freight Agent—O. E. Britt, of Milwaukee.

Auditor—J. P. Whaling, of Milwaukee.

Paymaster—C. A. Place, of Milwaukee.

Purchasing Agent—Robert Wason, Jr., of Milwaukee.

From the report of the year ending Dec. 31, 1867, we cull the following information:

Gross earnings of both roads for the year 1867 and '68.....	\$5,683,608 59
Operating exp's (65 per ct.).....	3,665,985 82

Net earnings.....	\$2,017,922 77
Interest on mortgage debt, and the Prairie du Chien preferred stock.....	\$1,144,932 00

Net earn'gs after paying int... 7 per cent. on \$8,050,892 of preferred stock.....	\$872,990 77
	563,562 44

Net earnings, after deducting interest and dividends on preferred stock.....	\$309,428 33
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The expense of new buildings and additional equipment of the road prevented the payment of any cash dividend, but that is expected to be done this year, and thereafter on the preferred and, perhaps, also on the common stock.

The floating debt of the Company, some

\$150,000, incurred by completing the purchase of the Eastern Division of the La Crosse and Milwaukee Railroad, will soon be extinguished. It is also stated that the litigation carried on during recent years, in regard to the ownership of this last-named Division and a portion of its rolling stock, has terminated in their favor, by final decisions of the United States Supreme Court.

In reference to the completion of the line between Cresco, in Iowa, and Owatonna, in Minnesota, eighty-five miles in length, the report says it was opened for traffic on the 1st of November last.

The report states the line west of the Mississippi river, from McGregor to Minneapolis, 215 miles in length, known as the Iowa & Minnesota Division, cost \$9,015,000. The results of this purchase, the report proceeds to say, since the completion of the line, have been highly beneficial to the Company. From January 1 to May 1, 1868, it earned \$358,600, against \$134,000 for the same time in 1867; thus showing an increase of \$218,000 in five months—*West. R. R. Gazette.*

Railroad Meeting.

(From the Anderson Intelligencer.)

Agreeably to notice, a very large congregation of the citizens of Rabun county, met this day in the Court House. The object of the meeting was explained to be to hear an address upon the subject of the Blue Ridge Railroad by the President of the Company, Gen. J. W. Harrison, and to devise means to render the said Blue Ridge Railroad Company all the assistance possible, to complete the contemplated line of road.

On motion of Major John Beck, Judge James Bleckley was called to the Chair; and, on motion, G. M. Netherland was chosen Secretary.

Gen. Harrison delivered an able and interesting address, which was listened to with great attention and earnest solicitude.

G. M. Netherland offered the following resolutions:

Resolved, That we have heard with great satisfaction, the intelligence that the Blue Ridge Railroad is not abandoned, and that the prospect for the resumption of the road is now highly favorable.

Resolved, That it is the duty of the citizens of Rabun county to aid the Company, by a liberal subscription of their idle and waste lands; and we urge upon them the necessity of prompt and immediate action.

Resolved, That a committee be appointed, composed of one man from each militia district in the county, to solicit such subscriptions.

Resolved, That the proceedings of this meeting be published in the Anderson *Intelligencer* and *Keowee Courier*, and that all other papers friendly to the Road be requested to copy.

JAMES BLECKLEY, *Chairman.*

G. M. NETHERLAND, *Secretary.*

WM. PRESCOTT SMITH, for many years Master of Transportation on the B. & O. R.R., which position he resigned at the request of Mr. LINCOLN, to take an important position in the Treasury Department, has been chosen General Manager of the through Railroad line between Washington and New York.—Mr. SMITH's past experience is a sure guaranty that his duty will be "well done."

Greenville & Columbia R. R.

SOUTH CAROLINA.

At the annual meeting of the stockholders of the Greenville & Columbia R. R., held at Columbia, S. C., on the 30th of April, a series of resolutions were passed, that are not without decided interest to the people of Cincinnati. The Greenville & Columbia Railroad forms, in connection with the Blue Ridge Railroad, a very important link in the direct railroad connection between Cincinnati and Charleston.

Resolved, That this Convention has heard with great satisfaction of the renewed and energetic efforts that are being made to complete the construction of the Blue Ridge Railroad, connecting the cities of Louisville and Cincinnati, and through them the great Northwest, by a direct line of communication with our Southern seaboard at Charleston.

Resolved, That whilst we favor and will encourage, to the extent of our ability, the construction of all railroads that promise to become friends to our road and aid in developing the resources of our common country, we regard the early completion of the Blue Ridge Road as of incalculable importance to the accomplishment of these objects. This work is of such magnitude as to be properly regarded as national in its character, and its early completion will bind together socially, politically and commercially the great Northwest and the Southern Atlantic slope—two of the important sections of our soon to be restored (as we earnestly hope and desire) National Union, by bonds that, growing stronger by time, even the throes of revolution will be impotent to sever.

Resolved, That this Convention hereby renews the action had and pledges made at its annual meeting in May, 1857, in favor of said Blue Ridge Railroad, and will contribute to its success all the influence and means in its power.

At the close of the meeting the following gentlemen were elected Directors for the ensuing year:

President—H. P. Hammett.

Directors—J. P. Reed, Robert Stewart, A. McBee, B. F. Perry, Daniel Brown, Simeon Fair, H. T. Farmer, L. D. Childs, J. L. Orr, W. A. Courtenay, A. C. Hawthorne, and J. W. W. Marshall.

The stockholders of the Cedar Rapids & Burlington Railroad Company held their annual meeting at Mozart Hall, on Thursday, May 28th, pursuant to the published call. The following were unanimously chosen Directors for the ensuing year: Des Moines—Hon. Charles Mason, J. H. Gear, James Putnam, T. W. Barhydt, Thomas Hedge; Louisa—James S. Hurley, John Bird, H. M. Ochiltree; Muscatine—B. S. Cone, Dr. Jesse Holmes; Johnson—Phineas Cowgill, E. K. Morse; Linn—Hon. Geo. Greene, Dr. J. P. Ely, Chas. Wear. At the meeting of the Board of Directors, held after the adjournment of the stockholders' meeting, Hon. Chas. Mason was elected President, and Dr. J. P. Ely, of Cedar Rapids, Vice-President. The Executive Committee consists of the President, Vice-President, and Messrs. Gear, Putnam, and Hurley. No change was made in the offices of Chief Engineer, Secretary, or Treasurer.

Effects of Railway Competition.

The following very sensible article is from the *Railroad and Mining Register*:

We find a newspaper extract going the rounds of our exchanges which propounds the doctrine that "the more competition we have in transportation the better it will be for the people, and none the worse for the corporations." A very slight acquaintance with the financial history of the railways of this and other countries proves the fallacy of this assertion. To build and equip an important line properly requires a large expenditure of capital, and this can only be rendered remunerative in a great majority of instances by a monopoly of the traffic of the districts traversed. No road in this country has yet acquired all the business it is capable of transacting, and where two roads penetrate a region incapable of fully employing the working capacity of one there is necessarily a waste or loss of a large amount of capital that might be more usefully employed elsewhere. There is ample room for parallel lines provided they are sufficiently distant from each other to possess independent means of support, and there is a wide field for improvement in the construction of local and connecting railways. But the construction of competing roads by the side of those now in existence would, as a rule, be prejudicial to the interest of the people as well as the corporations. For a time there might be a struggle to determine which line could be first ruined by low rates, but such contests rarely or never permanently promote the public interests. If one of the rivals could completely destroy the other, the victor would be obliged to seek remuneration in increased charges, for the expenses of a damaging conflict, and if both lines continued in existence the interests of stockholders would sooner or later compel such an amicable adjustment as would exact from the public a sufficient sum to render two roads a source of profit instead of one. While insufficient revenues were obtained the roads could not be kept in proper repair; delays and dangers would obstruct travel and transportation; the people would be under the necessity of accepting inferior accommodations; and there would be no permanent deduction in prices to partially recompense disconsolate passengers for slow rates of speed and an abundance of accidents. There are many railways in the country now which have not sufficient business to defray necessary expenses, pay interest and declare dividends, and as a natural result they are unable to furnish the facilities which their officers would gladly extend if the corporations they represent possessed abundant revenues. If the lines now well sustained were duplicated, they, too, might sink into the position of the roads which do not now receive sufficient patronage, and the want of means to provide for unceasing repairs and for the various improvements which are from time to time devised, would gradually lead to a deterioration of the standard of railway accommodations all over the country. Great Britain is now experiencing some of the evils of excessive railway competition, and her journals bitterly complain that an immense amount of capital is totally unproductive. This is of itself a very serious check to the prosperity of any nation, and it would be especially absurd for the United States to imitate her damaging example, because our area of development is of boundless extent, and those who are anxious to build new lines can find an abundance of promising territory un-

occupied. Let any person imagine, if he can, the practical difference in the results to this country of expending on the one hand two thousand millions of dollars to duplicate existing railway lines, and investing, on the other, the same amount in constructing many short branches as feeders of the existing roads, and new through lines at such places as they are most needed and most likely to prove profitable to their owners and useful to the public. In the one case no new sources of wealth would be added to those now existing, a large proportion of American capital would be virtually wasted, and bankruptcy would threaten thousands of citizens—in the other an immense variety of resources now practically unavailable would enter into the consumption and commerce of the country, settlements would be established in thousands of places which are now primitive wilds, and a mighty impetus would be given to all forms of industrial progress.

CHICAGO AND MILWAUKEE RAILROAD ANNUAL MEETING—ELECTION OF DIRECTORS.—The annual meeting of the stockholders of the Chicago & Milwaukee Railway Company was held on the 9th, at the headquarters of the Northwestern Railway Company, on the southwest corner of Clark and Lake streets.

The meeting was called to order by Mr. H. W. Blodgett, the President of the Company; there being represented stock in the Company to the amount of about \$20,000,000, out of a total of about \$22,500,000.

The first and only business of the meeting, which was merely of a formal character, the Company's property being leased to the Chicago & Northwestern Railway Company, was the election of a Board of Directors for the ensuing year.

This election resulted in the choice of the following gentlemen: H. Keep, of New York; H. H. Baxter, of New York; J. H. Benedict, of New York; H. W. Blodgett, of Chicago; J. H. Howe, of Chicago; G. L. Dunlap, of Chicago; Perry H. Smith, of Chicago; M. L. Sykes, of New York; James B. Redfield, of Chicago.

By comparing the above list of Directors with the old list, it will be seen that Messrs. Keep, Baxter, Benedict and Sykes have been elected to take the places of those Directors who have resigned their positions on the old Board.—*West. R. R. Gazette*.

RAILROADS AND THE FALL TRADE.—It is a fact that the enormous increase in the traffic over the Chicago and North-Western road is not from its Pacific connection mainly, but from its whole system of roads, while each and all are increasing their business largely in excess of the estimates. The growth of the agricultural resources of the West, finding an outlet on the roads running East and West, is so great that in the Autumn of 1868 there will be more business at high rates than all the roads can do. Never since railways were opened in the West were their prospects more encouraging than at present, basing them upon the crop prospects and the general trade of the country; and large as was the increase of the traffic in 1867 it bids fair to be dwarfed by the carrying to proceed from many a crop which, at this writing, exceeds in extent anything in the history of the country.

A leading merchant in the grain trade writes from St. Louis that in two weeks the wheat crop will be secure, and that in quantity and quality it is all that could be desired.—*Tribune*.

THE SOUTHERN MINNESOTA RAILROAD—Work on this road has commenced in good earnest, the money having been provided to construct 150 miles westerly from Rushford, through the southern tier of counties. As evidence of the truth of this statement, it is enough to say that, at nine o'clock a. m., of the 4th inst., two mortgages, for three million six hundred thousand dollars each, upon 180 miles of the road-bed and franchises of the said road, commencing at the west bank of the Mississippi river, opposite LaCrosse, was filed for record in the office of the Register of Deeds for Fillmore county. Upon the conditions of this mortgage, given to Samuel R. Ruggles and Albon P. Man, of New York, the company can draw \$20,000 for every mile constructed. The contracts for the grading of the first ten miles have been let; also, for the ties, and the right of way has been secured for the first twenty miles west from Rushford. We can confidently say that Fillmore county is to have a railroad, and that in five years her capital and population will be more than doubled.

At the recent annual meeting of the stockholders of the company, the following Board of Directors was elected for the current year: T. B. Stoddard, C. W. Thompson, Luke Miller, Edward Thompson, C. G. Wykoff, B. D. Sprague, H. W. Holley, Hiram Walker, P. M. Meyers.

At the meeting of the Directors for the election of officers, the result was: T. B. Stoddard, President; Luke Miller, Vice-President; C. G. Wykoff, Secretary; Luke Miller, Treasurer; B. D. Sprague, Land Agent.—*Preston Republican*.

MEXICO AND VERA CRUZ RAILROAD—In our last impression we referred to the railway works now in progress on the Peubla Branch of the Mexican Railway. We are now able to furnish a few details, which are evidences of the earnestness of the company and their determination that the road shall be built.

The principal work in hand is the erection of the Santa Cruz Bridge, which, when completed, will be one of the points of interest on this branch. The bridge is entirely of wrought iron, and is composed of three spans 58 feet supported on stone abutments and wrought iron piers. The line of the rails will be about 50 feet above the river. The iron girders are being rapidly put together, on the bank of the river, and when finished, and the piers are ready to receive them, they will be hauled across and securely fastened in their proper position. The work is proceeding rapidly, and it is expected that it will be finished in the next three weeks. The bridge was designed, and the working drawings made by the Contractor's Chief Engineer, Mr. Buchanan, M. I. C. E.

Preparations are also being made for the immediate erection of the iron bridge over the Soledad river, on the Vera Cruz and Paso Del Macho section.—*Mexican Standard*.

HUDSON RIVER R. R.—At the annual meeting of the stockholders of the Hudson River Railroad Company, held June 8th, the following gentlemen were elected directors for the ensuing year: Cornelius Vanderbilt, Wm. H. Vanderbilt, the Hon. Horace F. Clark, the Hon. Augustus Schell, John M. Tobin, D. Thomas Vail, James H. Banker, Oliver Charles, Wm. A. Kissam, Joseph Harker, M. H. Sanford, Samuel Barton, James M. Marvin. Upon organization Cornelius Vanderbilt was re-elected President, Wm. H. Vanderbilt Vice-President, and the Hon. Augustus Schell Secretary.

THE "DRAWING-ROOM" CARS—The "drawing-room" cars upon the Hudson River Railway cost \$15,000 each. The body of each car is 64 feet long. The projections of the platform add about 10 feet more to the length. Each car contains eight small apartments or drawing-rooms, capable of accommodating four persons each, and four large rooms, suitable for an entire family. One of the large rooms is set apart for the common use of all the occupants of the car, and is fitted up with elegantly upholstered revolving chairs. Each room, except the last, contains, beside the seats, a table, mirror, hat-racks, and other conveniences. The body of the car is finished in black-walnut and cedar. The roof is elevated and most artistically frescoed; along the sides "reversible exhausters," so arranged as to exclude all cinders, keep the air in the car pure and equal. Cold and hot air conductors, with registers opening into each room, pass through the car. The heaviest plate-glass windows, three feet square, supply each room with, and afford a full view of, the dissolving landscape as the car rushes along upon its course. Wilton carpets cover the floor, and heavy, costly curtains to the windows afford protection to those who desire seclusion from the public eye. The cars are set on six-wheel trucks.

At the annual stockholders' meeting of the Lake Shore Railroad, on the 10th, the old Board of Directors was re-elected, with the exception of J. H. Wade, Cleveland, vice Gilbert, deceased. The officers elected are A. Stone, Jr., President; J. H. Devereux, Vice-President; Geo. B. Ely, Secretary and Treasurer; H. Nottingham, Superintendent. A semi-annual dividend of $3\frac{1}{2}$ per cent. was declared.

The iron is now laid on the St. Paul & Pacific road as far as Long Lake, and regular trains will be running to that point within a day or two. A large quantity of iron is on the way, and they hope to run passenger trains to Crow river by the 1st of August. Their rolling stock is to be increased by the addition of two fine locomotives from Boston.

Amasa Stone, President of the Lake Shore Railroad Company, has turned over the charge of that line to Mr. J. Devereaux, late Superintendent of the Cleveland & Pittsburg Railway, Vice-President of the Company. Mr. Stone goes to Europe for the benefit of his health.

A MEXICAN TRAIN—CURIOUS SPECTACLE—A large train of Mexican wagons and carriages arrived in our city on Saturday, loaded with flour. The carriages were even curiosities to San Antonio, being a simple cart, with a lofty covering, and drawn by a team of five mules. The teams were all matched, and the finest lot ever brought to this city from Mexico. The owner, a large, fine looking specimen of the Mexican, accompanied the train, mounted on a splendid mule, caparisoned with elegant Mexican saddlery. The train expect to take back cotton if it can be bought. Considering that this train comes from Leon, in the State of Guanajuato, at least a thousand miles from this city, the animals look in fine condition. The return of Mexican trade to this city, will cause an increase of our prosperity, and a railroad to the Gulf would do much to secure this desired result.—*San Antonio (Texas) Express, 28th ult.*

Skilled Labor from Europe.

(From the Cincinnati Commercial.)

During the fearful struggle between those who sought to disrupt this great nation and those who desired to perpetuate its unity, the intelligent working men of Great Britain and throughout Europe were on the side of the Union, believing that in its maintenance lay the hope of the oppressed of all lands.

Of this class, thousands are longing for the day when they will be able to leave their native land and find homes in the land of the free.

One hundred and thirty of the largest and most powerful steamships, are employed in conveying immigrants and travelers to this country. At this season of the year, even this magnificent fleet is found inadequate to supply accommodations for all who apply, and hundreds have to be left behind.

Exactly one hundred steamships, engaged in this trade, sail from New York, twelve from Portland, ten from New Orleans, two from Boston, and six from Baltimore. Ninety go to Liverpool, four to London, four to Havre, twelve to Bremen, six to Hamburg, and fourteen to Glasgow.

The swift sailing packets are no longer resorted to except by those who can not meet the higher rates of the steamship companies; and the whole emigrating population turning to the steamships for the means of conveyance across the Atlantic, renders it necessary that more steamships should be built, and more ports of entry and new railroad routes opened up by which the increasing tide of immigration may find a way to the interior.

J. W. Garrett, Esq., President of the Baltimore and Ohio Railroad, whose large experience has made him familiar with the growing wants of the country, has given much attention to this subject. About two years ago, a monthly line of steamers sailing between Baltimore and Liverpool for the purpose of testing the practicability of establishing a paying line between these ports, was inaugurated. The experiment has proved entirely successful, and led men to the desire for the introduction of a larger class of steamers and a more frequent sailing from port to port.

The company of which Mr. Garrett is President, have entered into an engagement with the North German Lloyd Steamship Company by which two of their finest ships have been placed on the route from Baltimore to Bremen. They have made several successful trips, securing a large number of passengers and a fair amount of freight. This line is, also, monthly.

It has been found that, to be permanently successful, these Atlantic passenger ships must sail at least once a week, and on the day and hour advertised. To enable them to do this, it is necessary to have six in each line—four at sea and two in port at the same time.

Passengers and freight can be obtained in Great Britain and Europe to fill six first class steamers on each of these lines, weekly; but the question comes up: Can freight be obtained at Baltimore for a return cargo—can the exporters of this country insure the company an adequate return cargo. If they can, the line can be opened and maintained as a weekly line.

With a shorter route to the seaboard than by any other, comes a reduction on the rates charged for freight. With as good time per steamship as any other lines, we have assured success; for the local interests of the

community will be so obviously benefited, that business hitherto done in New York will be done in Cincinnati and Baltimore, and capital and enterprise will be attracted into new channels.

The Baltimore and Ohio Railroad Company have already constructed a great pier, 650 feet long by 85 feet wide, covered the entire distance, thus supplying 55,250 square feet of covered pier. Six first class ocean steamers can be discharged and loaded at this pier simultaneously. Grain elevators, stores, offices, and every thing necessary for carrying on an extensive business, will be supplied. The cars run right to the edge of the pier, so that there is no expense for drayage. The company are prepared to place a weekly line of first class steamers on both their routes, if the assurance can be given them of an adequate return freight. Will those interested in this matter give it their speedy and special attention?

With no desire to interfere with the existing lines of steamers or railroad routes, it is believed that the addition of this new route to those already in successful operation would be a great benefit to the immigrant, and to that portion of the country which would be opened up to direct communication with Baltimore, which is the legitimate port for this section. Then there are large numbers of skilled mechanics, miners, manufacturers—farmers and others of a superior class to the unskilled laborer—men having some little capital in cash as well as in brains, who would settle in such openings as might present themselves to them as they pass along the line of road to the far West—who by the existing routes would not be brought within reach of these openings.

The completion of the various Pacific railroads demands the opening of new routes to the seaboard, and Baltimore ought to be among the first to reap the benefit of such a connection, as she has been the first to take the matter in hand.

Should any gentleman feel interested in the carrying out of this project, I shall be happy to meet with them on 'Change on Monday, from 12 till 1 o'clock. I am, Sir,

Your most obedient servant,

P. SINCLAIR, of Scotland.

Cincinnati, June 13, 1868.

GEOLOGICAL SURVEY OF THE ROCKY MOUNTAIN MINERAL REGIONS.—The Commissioner of the General Land Office, in recommending to Congress an appropriation of ten thousand dollars for geological surveys and explorations, says the great agent of the world's progress is steam, and therefore adds:

It is reported that an extensive coal field exists along the eastern base of the Rocky Mountains, extending from the northern portions of New Mexico to Montana, presenting an area varying from 10,000 to 20,000 square miles, the beds being in some cases from thirty to fifty feet in thickness, and furnishing coal of excellent quality, distinct from and superior to the brown coal or lignites so abundantly existing along the same range of mountains.

Through Colorado, New Mexico and Montana, and westward to the Pacific, immense beds of iron ore of fine quality, with mines of copper, lead, tin and zinc are said to exist, but no careful examination of these deposits has been made by men of science, and comparatively little is known of their availability for practical use.

A geological survey of these districts would

at once place the character of their resources upon their true basis, give shape to our information concerning them, and place it in an authentic form.

The same remarks may apply in reference to the precious metals. The numerous deposits in Montana, Dakota, Colorado, New Mexico, Arizona, Idaho, Utah and certain regions on the Pacific, are imperfectly known, even to the few explorers who have prospected this extensive country.

Its extraordinary wealth can become fully understood only through a scientific exploration, ordered by the Government, conducted under its authority, and its results published to the world under its sanction.

The influence of such a report, designating the localities of the gold-bearing rocks and placers and silver lodes, with explanations as to their leading characteristics and probable extent, accompanied with practical suggestions upon the exhumation of the precious metals, would of itself be very great, and would many times repay the expense of the commission; but when, in addition to such information, it embraced that also pertaining to the useful metals, the soil and productive capacities of the valleys and plains, and hillsides, the means by which irrigation may be effected, supplies of fuel and building materials obtained, and the special adaptation of each locality, it would do more, it is believed, to disseminate a correct knowledge of this extraordinary portion of our public domain, and invite capital and population from foreign countries, than any other.

CRYOLITE, the new flux which has been recently used with extraordinary success in the treatment of ores containing the precious metals, is thus described in the *San Francisco Mining Press*:

Hitherto it has only been found in available quantities for economical purposes at Evigtok, Greenland, where a vein eighty feet wide has been worked, and has been traced to the extent of 300 feet in length; it dips to the south at an angle of nearly 45°, and runs nearly east and west. There are a considerable number of minerals which accompany it which are highly interesting, viz: feldspar, trap, arsenical pyrites, quartz, argentiferous galena (containing 85½ per cent. lead, and 45 ozs. silver to the ton of ore,) copper pyrites, blende, sparry iron ore, also, is found to accompany the vein. Gneiss is the inclosing rock of all these minerals. The central upper part of the vein is quite white, but the portions abutting against the gneiss are much decomposed, having many cavities which contain loose crystals of sparry iron ore. At a depth of ten feet from the surface, the cryolite, although free from foreign matter, assumes a darker color, and at fifteen feet approaches a black one, and becomes more translucent and compact. The deeper the sinkings that have been made, the darker the color has been found, which circumstance has given rise to the opinion that the original appearance of cryolite was black, and will so be found at a moderate depth from the surface.

In the course of a trial of an engine-driver at the Gloucester (England) Assizes, on a charge of manslaughter, of which he was acquitted, the counsel for the defense incidentally gave an easy rule for remembering and distinguishing railway signals—

White for "right," red for "wrong,"
And green for "gently go along."

"THE FLYING MAN."—At a recent meeting of the Aeronautical Society it was announced by Mr. Wenham that one of the members of the society, Mr. Spencer, had already constructed an apparatus, by the aid of which he had accomplished the feat of raising himself from the ground-level and performing a horizontal flight of 60 feet, and it was further stated by Mr. Wenham, that Mr. Spencer expected to fly the length of the Crystal Palace during the meeting of the Aeronautical Society to be held there on the 25th inst. Since the above announcement was made, we have received from Mr. Spencer some particulars of the apparatus employed by him. It consists of a pair of wings of rather small size, arranged so that they can be worked by the arms; and a large fan-shaped tail of a very light construction connected to the body by basket-work, so that it stands at an angle of about 3° with the horizontal. Mr. Spencer does not profess to fly in the ordinary sense of the term. He uses his apparatus by taking a short, quick run, this run being continued until by pressure of the air against the under surface of the tail he is raised from the ground. He then, by using the wings, maintains the momentum which he has acquired as long as possible, and is thus enabled to skim along at a short distance above the ground. Mr. Spencer commenced his operations by practicing long jumps without the aid of apparatus, and he then commenced using the wings, and finally added the tail. By continued practice, and from time to time making alterations in his apparatus, Mr. Spencer has been enabled to extend considerably his early flights or "skims," and we were informed by him a few days ago that he had lately accomplished a horizontal flight of 180 feet, starting and alighting at the ground-level. Mr. Spencer is now engaged in completing a new apparatus, which he hopes to finish in time for the exhibition of the Aeronautical Society at the Crystal Palace, and we look forward with some interest to witnessing his performance.—*Engineering*.

[Suppose Mr. Spencer should succeed in imitating the birds, what good will be accomplished? It is extremely doubtful if his invention would be either useful or ornamental. Hence, we think he is allowing a large amount of inventive genius to run to waste, which had better be turned into a more useful channel.]

CANADA—HER RAILROADS AND PORTLAND.—The people of Portland are giving a practical illustration of the great fact in the relations of the United States and the British North American Provinces—that the natural and most profitable commercial connections of the Province are not with each other, but with the United States. The voters of that city have decided, by a majority of 2,000, to take stock to the amount of \$750,000 in a proposed railroad from Portland to Ogdensburg, to furnish the shortest possible route from Portland to the lakes. By the proposed road a saving of eighty miles, as compared with the Grand Trunk Railroad, will be effected; and the Portlanders delight in the additional prospect of thus bringing their city seventy miles nearer the great lakes than Boston is by any existing route. Beyond the ambitions of the Portlanders, the project suggests important considerations to the statesmen of Great Britain and the New Dominion. The inter-colonial road is the longest route to the

ocean — much longer even than the Grand Trunk.

The British and Colonial politicians cannot hope for even a moderate measure of commercial success for this road. As a military project it is not intended for any other purpose than to assist the Canadians in the event of a war with the United States. Viewed in this light, and considering our great numerical strength of trained soldiers already on the continent, and that the line of communication if broken at one point is practically broken throughout the whole length for its chief purposes, we are more sorrowful for the poor use our neighbors and the British capitalists are making of their money than alarmed by the power to be conferred on Canada by the road. Passengers and freight will seek the shortest route for travel and for trade. Doubtless the expenditure of millions of public money is agreeable and even lucrative to politicians in Canada. — *World*.

TOLEDO, PEORIA AND WARSAW RAILROAD.— A meeting of the stockholders of this road is called for June 15 proximo, to vote on the question of extending the road from La Harpe to Burlington, Iowa, and from Warsaw to Quincy, Ill.

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} Dec. '67.

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
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3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

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Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
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a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Day Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,38pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

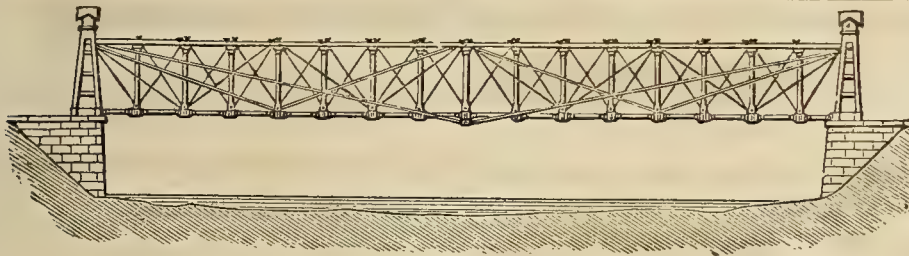
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

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Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

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STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

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AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
my 11

Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

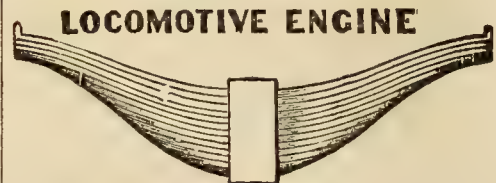
MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
3.0 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE

THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

Baltimore and Ohio Railroad

This great national thoroughfare is again open for

Freight and Travel.

Bridges and Tracks are again in Substantial Condition.

The well-earned reputation of this Road for

SPEED, SECURITY AND COMFORT,

Will be more than sustained under the reorganization of its business.

In addition to the *Unequalled Attractions of Natural Scenery* heretofore conceded to this route, the recent *Troubles upon the Border* have associated numerous points on the road, between the Ohio river and Harper's Ferry, with painful and instructive interest.

CONNECTIONS

At the Ohio River with Cleveland and Pittsburg Central Ohio, and Marietta and Cincinnati Railroads; and through them with the whole Railway System of the Northwest, Central West and Southwest. At Harper's Ferry with the Winchester road. At Washington Junction with the Washington Branch for Washington City and Lower Potomac. At Baltimore with four daily trains for Philadelphia and New York.

TWO DOLLARS additional on through tickets to Baltimore or the Northern Cities give the *privilege of visiting WASHINGTON CITY en route*—being \$3.00 lower *than the cost by any other line*, as recently charged; and a rate to Baltimore being \$1.50 lower than recently charged by way of Harrisburg.

This is the **ONLY ROUTE** by which passengers can procure *through tickets and through checks* to WASHINGTON CITY.

W. P. SMITH, Master Transportation, Baltimore
J. H. SULLIVAN, Gen. Wagon Agent, Baltimore, O.
L. M. COLE, Gen. Ticket Agent, Baltimore.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run **SEVEN MINUTES FASTER** than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 09 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	"
Arrive VINCENNES,	5 15 "	6 35 "	"
Leave "	5 20 "	6 40 "	"
Arrive ODIN,	9 35 "	10 30 "	"
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 133 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY, (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.00 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 20 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same. &c., Gas Works Castings, etc., etc.

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STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.30 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at 11.00 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON.

CINCINNATI:
THURSDAY, JUNE 25, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" column, single insertion..... 5 00
" " p. month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:30 P. M.	8:40 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:21 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:40 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:40 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:40 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	6:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:30 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:25 P. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:05 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Live Questions of the Day.

The leading political issue of the past forty years, have passed into oblivion, and are now but matters of history. The "corner stone" of Democracy, "slavery,—the normal condition of the African" now universally considered as "the last vestige of barbarism," has been "wiped out" by the rebellion, "root and branch," and is beyond the power of man to either procreate or resurrect. True, the "everlasting Nigger," like the class that Judas was so anxious to provide for, "always ye have with you," will still be a "bone of contention," passively creating new themes and new topics for the demagogue and stump orator. Although, the new state of things will have its diversities and attractions in the "d—n Nigger" and "my colored friend," dependent upon the latitude and the occasion, that will be equivalent to "the rich Irish brogue and sweet German accent," yet it will be devoid of that intrinsic merit and intensity of interest, that gave the peculiar zest and "silver ring" of "dollar and cent value" under slavery regime, to the "Nigger question."

So likewise we might pass through with every other question that has hitherto divided party lines. What then, is now to make the distinction? It is not *reconstruction*; for before it can come up for the arbitrament of the ballot box, that will be *au fait accompli*. It will not be, whether this nation is a *unit*, or a *segregation of States*; that has been settled by the sword; and henceforth we are to know no North, no South, no East, no West, and the boundary lines of States are not to limit and cramp the energy of enterprise and commerce.

The great questions that are looming up and attract the attention of this nation and the world, are connected with

PROGRESS—DEVELOPMENT

The old nations of Europe, with their limited territories, hemmed in by jealous neighbors on every side, cannot make the rapid strides in the march of improvement that the *telegraphic age* in which we live demands. There are two leading "stars of Empire" on which the eyes of the world are fixed—the Eastern and Western—Russia and the United States. No efforts of surrounding powers—no machinations or combinations of their enemies can defeat the law of destiny—and higher and higher, more and more brilliant will they soar till their radiance fill the two hemispheres. This being the destiny of our Republic,

THAT PARTY WHICH GRASPS THE SITUATION

And advocates those measures best calculated to develop our resources, and advance our national aggrandizement, will meet with popular favor. No one interest of our country is exclusive; the immensity of our agricultural products, is, it is true, a preponderating

power, yet it is liberal in its views, and regards the prosperity of the mechanic, the miner, and the merchant, as synonymous with its own. Hence, a comprehensive and liberal policy, that will develop the latent wealth of our broad acres and our mountain sides—that will furnish cheap food and a sound currency—that will make trade reliable, and the mechanic arts flourish—that will increase our wealth and extend our influence—is what will attract the votes and secure the confidence of the American people.

THE CONDITION OF THE LABORING MAN

Of this country during the past few years has been peculiarly trying. The war necessarily diverted an immense amount of labor from the *production* of the necessities and conveniences of life to their *destruction*, and turned the current of all our thoughts from the implements of peace to the destructive engines of war. It developed, however, in a wonderful degree, the inventive genius of the nation; and rapid progress has been made in the improvement of machinery and labor-saving implements in every department of industry. Especially is this true in the application of machinery to the department of agriculture, so that now one man can produce greater crops with the aid of machinery, than formerly resulted from the labor of half a dozen. This requires an expansive policy—a growth—a widening of "broad acres"—new territory and new fields of enterprise, new markets for our goods. A bringing together of distant points, by easy and cheap transit,—by the improvement of rivers, the digging of canals, and the construction of railroads. The first renders available the *natural* avenues of commerce; the second advantageously connects those natural avenues by routes of easy transit; while the third, the glory of the present age, laughs to scorn the impediments of nature, and rises above the "impassable barriers" of cloud capped mountains or passes with safety through the "bowels of the earth" bearing its precious freight.

In the total absence of the *natural* avenues of commerce it is the

RAILROADS

Between the Atlantic and Pacific States that can alone develop the vast and dormant wealth of our Public Domain, and render its treasures available for the use of the nation. A mineral belt stretches the length of the continent that is unequalled on the face of the globe for richness, while the agricultural resources of the intervening and otherwise inaccessible territory is not yet computable. California was once regarded as a "barren waste," not much better than the Territory of which Col. BENTON said "if a crow desired to cross it, he would have to carry a knapsack of provisions to keep him from starving." How is it regarded now?—the brightest star in all our galaxy. This is not all.

CHINA, WITH HER TEEMING MILLIONS,

Is just opening her doors for trade with the outside world. Who supposes that, with an American as her confidential agent, our interests will be neglected. The traffic of the Orient is ready to 'bout ship and flow in the new channel just opening across our continent by the construction of the Pacific Railroads. This traffic alone will keep one road of double track more than occupied, independent of the way traffic on lines near two thousand miles long, and on a broad belt *fifteen hundred miles wide*. This is exclusive of the trade that will arise to South American ports, Australia, Japan, and the Islands of the Pacific. "Eye hath not seen, ear hear, neither can tongue tell" the vastness of this coming traffic. That it is not a dream, witness the preparations of our great East and West trunk lines to secure the control of the most available avenues and approaches to it. It is a reality that needs wise statesmanship and liberal legislation to develop. Hence, with Gov. MARSHALL, of Minnesota, we say "give us at least one great railway for each belt of 500 miles in width." And again, "let there be aid both to the Southern and Northern, as well as to the Central routes."

HOW TO DO IT.

We have, on a previous occasion, suggested that the present manner of granting aid in the construction of these great railroads to the Pacific was *defective*, or rather not the *best*. The Government subsidy is not a gift, but a *loan of credit*,—a loan of Government bonds, on which there is a *possibility*, although not a *probability*, of risk, and for which the Government receives only a *second-class security*; or, in other words, in the case of loss, comes in as "second best." The Government has to assume a liability to *other parties*, the bond-holders, for the interest as well as principal, and although the roads have always paid it, and, probably, always will do so, yet the *liability* among conservative thinkers is that this is a *risk* which the Government has no right to take, no matter what the benefits resulting from it may be. These objections are all obviated by the issue of

GREENBACKS INSTEAD OF BONDS,

Say to the amount of twenty or twenty-five thousand dollars per mile, and the Government taking the *FIRST and ONLY MORTGAGE* on the roads. Greenbacks are what the roads now get by the sale of the bonds; and the interest, instead of being paid to bond-holders, would go to the coffers of the Government, where it rightly belongs. *Two hundred millions of greenbacks*, or even three, issued as the roads progress, would create no disturbance in the money market, no great panic would arise, it would fall as gentle as the "evening dew;" the Government would receive a *revenue* on a *first-class security*, and by appropriating the proceeds as

A SINKING FUND,

Thus imitating the experience and example of many of the nations of Europe, would, in a few years pay our National Debt. In the meantime our National resources would be developed—our agricultural wealth increased—our mineral product quadrupled—and the basis of taxation extended *ad libitum*.

These are the measures that are to occupy the thoughts of the American people, and the party whose policy shall boldly meet the wants of the age is entitled to and will receive their support. Now is the time for live, active measures looking to the present material advancement and future glory of the Great Republic. Shall we have them? Or, will we, in the contest over the fetid carcass of dead issues, lose sight of Progress, of Civilization, Advancement, and the Spread of Empire?

PERSONAL.—To be "taken short" is sometimes a "serious affair," and is not always attended with as happy results as on the occasion, yesterday afternoon, of the presentation of a most elegant chronometer to Major W. B. SHATTUC, the energetic and popular General Ticket Agent of the Atlantic & Great Western Railway. While we acknowledge that it is an *outrage* to "take advantage of a fellow" when he is not anticipating an attack, we confess that the *reaction* on this occasion was so agreeable that we should not object to having it "tried on."

SAMUEL A. LEWIS, the well known Passenger Agent of the Atlantic Road, made the presentation speech in the presence of a few select friends who had received a sly intimation that *something* was about to occur. Mr. LEWIS, said:

"Mr. SHATTUC:—On behalf of your employers and friends, I have the pleasure of presenting you with a watch, as a token of their appreciation of you as an officer and friend; and we all trust that our future connection may be as pleasant as our past."

Mr. SHATTUC was so entirely "taken a back" that for a time he found it difficult to speak. With a heart "boiling over," his tongue let loose the following response:

Mr. LEWIS AND GENTLEMEN:—I hardly know what to say in response to your kind action and words. The gift is so unexpected that I am little prepared to tell you of my sincere gratitude for your kindness, and I cordially unite with my friend Mr. LEWIS in his wish that our future intercourse may be as pleasant as our past."

It was after this that the "boys" had a "good time,"—when "speech and song" enlivened the scene and made the "rapid moments fly."

We are indebted to Hon. A. M. STOUT for a copy of the Patent Office Report, for which he will accept our thanks,

RAILROADS TO THE PACIFIC.

The Development of the Country.

"Progress" is the watchword of this age, and that country will take the highest rank among the Nations of the Earth that is "first in peace,"—in the arts, sciences, and development of its material interests,—in the production of the necessities, the useful and the beautiful,—in all that goes to constitute the essence of Progress. Increased production of the soil, the "growth of two blades of grass where but one grew before,"—the spread of intelligence, and improvement in the intercommunication of thought by the telegraph,—facilities of locomotion, and cheapening of transportation of goods and produce,—the perfection of the mechanic arts, and the elevation of the "dignity of labor." It is in the opportunity that we possess as a nation by our immense unoccupied public domain, to thus cultivate the "arts of peace," that furnishes us our principal advantages over the older nations of Europe. While the energies of other countries are expended in their constant preparations for war, we are exempted from their exhaustive system, and can devote our energies to the advancement of civilization and the development of all that tends to the material welfare and happiness of the great human family.

It is true, we have just emerged from a severe ordeal, and are loaded with its results in a manner to which we are unaccustomed; but the growing, increasing resources at our command will soon enable us to so reduce our National obligations that they will no longer be irksome. The growing crops, with economy of expenditure and judicious improvement of opportunities in the development of our National resources, increasing the area and basis of taxation, will lighten the burden, until, in a few years, it will be lifted from our shoulders, like the morning fog on the mountain side before the morning sun. Neither is it politic to expend all our energies on any one section and ignore all others. In a great country like ours, with its free and liberal institutions, where all alike share its glory and participate in the benefits of beneficent government, an exclusive monopolizing policy must ever be unpopular. Although, it may be true, that the "world was not built in a day," and there is a limit to human ability, yet it is as easy too for the Government to *loan its credit to three lines of railway*, as to one, and thereby develop the whole country simultaneously.

In response to the attempt of its correspondent, A. D. RICHARDSON, Esq., to show that the Government should aid only one route to the Pacific, the *Tribune* gave the following succinct reasons why the railroad on the Kansas route should be finished:

I. He objects that the Kansas Pacific Road is not to be completed to Denver. As

the Omaha Road is to be extended (by branch) to that city this year, we fail to perceive any National end to be secured by such connection.

II. He thinks a Northern Pacific Road should be completed before a Southern. There are some considerations which favor that view, while others, more urgent, (as we think) bear the other way. The Missouri, the Yellow Stone, and other great rivers, afford access to the upper country by steamboat; while New Mexico and Arizona are approached by wagons alone. Then the Government has more Indians to watch, feed, or fight on the lower than the upper route, and is compelled to keep more troops there—every pound of their subsistence costing ten to twenty cents for transportation alone. Hence the Government's need of a Southern is far more urgent and palpable than its requirement of a Northern road.

III. Mr. R. urges that there are rival roads running Westward, on or near the 35th parallel, that better deserve Government aid than the Union Pacific. Our preference of the latter is based upon the presumption that it is already extended much further West than any rival, so that it can be completed to the Rio Grande far sooner and at less cost than any other.

The unquestionable honesty and intelligence of the Editor of the *Tribune* entitle his opinions to very great weight; but at the same time there are other people equally honest, and possibly more intelligent on some subjects, whose opinions on those subjects claim as much, or more consideration. Hence, we have, in response to the above, the following from Hon. WM. R. MARSHALL, Governor of Minnesota, copied from the *Tribune*, of June 19th:

Without wishing to detract from the force of your statement as a *positive* argument in favor of Government aid to the Kansas Pacific Road, I beg to submit a few facts to show that your disparagement of the importance of the Northern Pacific Road is hardly just.

The number of Indians along the Northern route is quite one hundred thousand, or fully one-third of all the Indians of the United States. Let me enumerate. Between latitude 44° and 49°, west of Lake Superior, are the following tribes: Chippewas, 15,000; Sioux, of Dakota, 35,000; Crows, Blackfeet and Shoshones, of Montana, 20,000; Indians of Oregon, Washington, and Idaho, 30,000. These figures are from the report of the Commissioner of Indian affairs. Now, in regard to troops along this route, and the cost of shipping them: The following figures are also from official sources—the report of the Secretary of War, 1867, and of the Quartermaster General, November 30, 1866,—in response to a resolution of the Senate:

Number of military posts, 28, which are garrisoned by 76 companies. For supplying these posts 22,995 tons of subsistence are required per annum. The cost of transportation or these stores, under the contracts given in the report of the Secretary of War, and taking the distances specified in the Quartermaster-General's report, is \$6,158,972—over six millions per annum. From half to two-thirds of this annual cost of transportation would be saved to the Government by a Northern Pacific Railroad, or from \$3,000,000 to \$4,000,000. If we add to this the saving on postal service we should have an amount nearly or quite equal to the interest on the

United States bonds that would be required as a subsidy to build this road.

I make no reference to other great benefits—the settlement of a magnificent agricultural country, the wheat belt of this continent, the increase of National wealth by the increased production of agriculture and mining that would result from the construction of the Northern Pacific Railroad. All these would ten fold reimburse the Government for its loan of credit, even if there were a possibility of the Government losing the sum it should advance to the Company.

Let there be aid both to the Southern and Northern as well as the Central routes. Surely one line will not develop, will not meet the wants of that great interior district, embracing 20° of latitude, 1,500 miles in width from north to south, stretching from the Mississippi Valley to the Pacific. Give us at least one great railway for each belt of 500 miles in width.

The suggestion in the last paragraph of the Governor's letter is the true one, "let there be aid to both;" and his "give us at least one great railway for each belt of 500 miles in width," has a comprehensiveness and statesmanship about it that must commend it to the minds of all fair thinking men.

The Future Great City of the World.

In some political essays of Deán Swift (for he was a great political writer), he describes the elements necessary to make a great city. The ultimate was something like Cicero's description of a great orator,—*everything was necessary*. But, within narrower limits, there are some things essential. For example, to be a great city, it must have *food*; and be in a food producing country. The necessity is not, however, to have it in the immediate vicinity of the city, provided it is in a country which she can command by railroads. In this respect, railroads have much modified the conditions under which a great city must exist. How far those conditions may hereafter be modified, it is impossible to conjecture. But, at any rate, it must be a universal principle, that a great city must be in a food producing country, which can be commanded by the city. But, this is only a means of feeding people, if they come there. But, why should they come there? This is the real question. There are two great reasons for people living in a town, at a certain point. Both, however, are resolvable in one; to *find employment*. In a large town this may be resolved into two modes; by trade, or manufactures. In this respect, manufactures has much the advantage; for, trade does not necessarily bring manufactures; but, manufactures must bring trade; for, the manufacturer cannot go on, unless he can sell his wares. If there be a demand for them any where in the world, that creates trade,—commerce. In this view, we leave out of view both the professions and the mechanic arts; for they are mere incidents to a number of people, whether in town or country. We have, then, the rise of a great city from trade

or manufactures; provided always it can be fed cheaply. But, we do not intend to go into the philosophy of the growth of cities; but, merely to notice a pamphlet lying before us, entitled, "THE FUTURE GREAT CITY OF THE WORLD," by J. W. SCOTT, of Toledo. Mr. Scott has written several useful and interesting articles on this, and kindred subjects. His mind has been led, in this way, to consider one of the most interesting problems presented by human society. Man is a gregarious animal, and civilized man builds towns to gratify his social and gregarious nature. But he can only build them under circumstances favorable to their continued existence. He cannot afford to build them to day, to be destroyed to-morrow. That is, he cannot consistently with his intense acquisitiveness, afford to throw away his labor. Hence, towns are built, as we have said, on the principle of finding *employment* (that is, profitable employment) for men, who can also find food to live there. Hence, under what circumstances can this best be done? is a very interesting problem. This problem Mr. Scott investigates. Let us look a little at his ideas on this subject. Mr. Scott first lays down this proposition, which we think entirely true, and corresponds with what we have already said. It is this: "Cities are *organisms*, that grow up as naturally as men. They develop where human faculties are most effective, and because those faculties can be more effective there than elsewhere." This is true, with one modification, which must be assumed in the first place, as essential to their existence at all; this is a food producing country. The first development of the faculties of man is in agriculture; because the first need of man is *food*.

Mr. Scott alludes to the early cities on the Tigris, Euphrates, and Nile. Now, these cities were among the largest and wealthiest in the world, and most of them are now buried under the sands. Why? They undoubtedly had good *sites*. There is no trouble about that. They were actually the best sites for cities on earth. But, *why* are they buried in sands? We need not go back to the doom pronounced by inspired Prophets, because we are simply asking not the doom, but the *means* of their destruction; and these means are not hidden. Babylon, Nineveh, and Thebes, perished for *want of food*, and that want was produced by the destruction of the food producing people, the disorganization of society, and the overflow of barbarians.

A great city is, we admit, an organism of society, but one which is not existent so much by the employment of its own faculties, so much as the prior employment of the human faculties in agriculture. This being assumed, let us proceed to the causes of their growth. The greatest city will be where there are greatest facilities for the supply of the population in all the needs of life and the arts; and the greatest facilities for both trade and

manufactures. But, in North America there are many places with almost equal advantages; but, not all in the same things. New York, for example, (now our largest city,) has the greatest advantage for *foreign trade*; but, it falls far short of many, in advantages for manufacturing. It falls short of Philadelphia in this particular; for Philadelphia gets coal and iron cheaper. Hence it is, that Philadelphia, to the astonishment of New Yorkers, keeps close on the heels of New York. But, let us return to Mr. Scott. He says truly, that the *centre of population and industry* in North America is steadily moving West. But, that is not all, the centres—the great social elements are all moving Westward, for the entire world. London is the greatest city of the world, but, how long will it remain so? London was a town when the Romans conquered Britain. At that time, civilization was proceeding as it is now, Westward; and Rome taking the place of Babylon, Nineveh, Thebes and Alexandria. Then Western Europe gradually rose up to power, and as it rose, London grew with it. Of course, it could not be the first city of the world, till Rome had declined. With the decline of Rome, Paris and London came up, and Britain becoming the first commercial nation, London grew with it. The settlement of America gave it still greater growth, as the commercial centre of America and of Asia. But, is it now the commercial centre? And, how long will it remain so? The articles we have issued in the RECORD, for fifteen years, on the Pacific Railroad, will show what we think of that matter. We think that the Pacific Railroads, taken in connection with the rapid growth of the United States, will produce a great commercial revolution in the world. It will break down the hitherto mountain barrier, which arrested the flowing together of the great Eastern and Western streams of civilization; for Asia has a civilization of its own; and these great streams mingling must throw all the elements of Eastern culture into America; and the great city, which is to be the organic result of this culture, will be in the *centre of the temperate region of America*; not the geographical centre, but the social and commercial centre. Such is the revolution, which in our opinion, is to be brought about by the Pacific Railroads.

Let us return to Mr. Scott's calculations. He estimates the growth of New York to be double that of London, and allows them both to duplicate. Thus:

If we allow London a future growth of two per cent. a year, and New York of five per cent., on a population of three million for the former, and half that number for the latter, the result will be in 1882, fifteen years from this time, that London will contain, in round numbers, four millions. New York will then contain over three millions. Allowing the same rate of increase up to 1893, the two cities will be nearly equal, New York numbering 4,849,387, and London 4,823,514. The

United States, at that time will contain over sixty millions of people; and the British Colonies, bordering the States on the north, will contain some eight millions. Together, sixty-eight millions. Long before that year, Eastern Asia, embracing the great Empires of China and Japan, with all the coasts of the North Pacific Ocean, will have become practically nearer to New York than to London, by means of railways across the American Continent.

Now, we reject all this estimating by duplicate ratios; because no theory of that sort ever holds good in fact; but, we do suppose that New York will grow faster than London, and that both may reach a very large size. The main fact in the case is, that New York is increasing much the fastest; and that *the interior cities of the West grow faster than New York*. The question then is, as a matter of curiosity, which of these towns of the West will rival, or surpass New York? That the *great central city* of this Western Continent cannot be a town situated in the *rim*, on its vast circumference may be taken for granted, without argument. Where is it likely to be? This article is already too extended to consider here a problem of such magnitude; but, we propose to consider it in the RECORD. We may here remark, that both Nature and History have determined some great principles, by which this problem may be solved. We do not entirely agree with Mr. Scott in his conclusions, and shall show why. Among other reasons, we do not believe that the great city of a continent will even be *North of the central line of production*; and according to Mr. Scott's theory it will be. But, we do agree, that the Lake Basin will have very large cities in it; and that the sites of those cities is not a mystery. The problems connected with this subject are very interesting, and we shall discuss them in future articles.

C. F. DOANE, Esq., has been appointed Assistant General Ticket Agent of the Atlantic & Great Western Railroad. The officers of the Company evidently understand how to reward meritorious services.

The receipts of the Western Union Railroad Company, for the week ending June 14:

	1868.	1867.	Inc.	Dec.
Freight.....	\$14,902 83	\$10,654 15	\$4,248 68	.....
Passengers	3,722 25	3,400 42	321 83	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$19,350 08	\$14,829 57	\$4,520 51	.....

Receipts from January 1 to June 14:

1868.....	\$291,185 08
1867.....	232,100 85
Increase.....	\$49,378 23

PLATINA IN OREGON.—A very fine specimen of platina was lately exhibited at the meeting of the "Lyceum of Natural History" in New York, by Professor Chandler. This specimen was brought from Oregon, and weighed over four pounds.

St. Louis, Alton & Terre Haute Railroad.

The earnings of this road for the year 1867, were as follows:

From passengers.....	\$767,194 39
" freight.....	1,265,808 92
" mail.....	39,633 41
" express	105,601 94
" miscellaneous.....	40,163 68
Total.....	\$2,218,402 34

INCOME ACCOUNT.

Balance December 31, 1866.....	\$47,272 19
Earnings from all sources, 5 months, to June 1, 1867.....	842,447 19
Earnings of Belleville Branch, from all sources, for 7 months, from June 1, 1867.....	188,372 56
Amount—Contractors of Main Line, from 1st June to 30th November, inclusive, (6 mos.) 30 per cent. gross earnings, \$1-038,001 48.....	\$311,400 44
Minimum amount for December, 1867, (Excess, payable 1st February, 1868	37,500 00
Interest on balances, contractors' acc't.....	5,570 29
Total.....	\$1,432,562 67

AGGREGATE EXPENDITURES AND LIABILITIES.

Payments on the road from January 1st, 1867, to May 31, 1867, (5 mos.) for improvements and transportation expenses.....	\$857,141 33
Less amount assumed by contractors for locomotives and supplies on hand.....	118,089 09
	\$739,052 24
Paym'ts on the Belleville Branch from June 1st, to December 31, 1866, for repairs of roadway, transportation expenses, &c.....	38,116 10
Total amount of coupons payable in 1867.....	469,000 00
Am't of sinking fund for 1867....	25,000 00
	\$1,271,168 34
Balance, December 31, 1867.....	161,394 33
Total, as above.....	\$1,432,562 67

CAPITAL STOCK AND BONDS.

Preferred stock	\$2,040,000
Common stock.....	2,300,000
	\$4,340,000
1st mort. bonds series A. \$1,100,000	
" " " B. 1,100,000	
	2,200,000
2d mort. pref. series C. \$1,400,000	
" " " D. 1,400,000	
	2,800,000
2d mortgage income	1,700,000
	\$11,040,000

The most important act during the past year has been the arrangement made with the railroad companies east of Terre Haute, for the operating of the main line of your road from Terre Haute to East St. Louis and the Alton Branch.

An operating contract with the Indianapolis and St. Louis Railroad Company was duly executed, and the actual possession of the road

and its equipment was formally delivered to that company on the 11th day of September last, since which date the main line has been operated under the contract. By the terms of the contract, it took effect on the first of June previous, from which last date up to the 11th September it was operated on account of and for the Indianapolis and St. Louis Railroad Company, and the accounts have been adjusted accordingly.

By the terms of the operating contract, they are to put the road, with its equipment, in good condition, and equal in every respect to first class roads of the western States, and so to keep and maintain it. They are to pay to this company 30 per cent. of the first two millions of gross earnings; 25 per cent. of the next or third million, and 20 per cent. on all earnings above that during the existence of the contract.

These payments are to be made in monthly installments, with an agreed minimum of \$37,500 per month, or \$450,000 per annum, as stated in the circular of the 17th July last, a copy of which is appended hereto.

The performance of this contract is guaranteed by the Pittsburg, Fort Wayne and Chicago Railway Company, one-third, the Indianapolis, Cincinnati and Lafayette Railroad Company, one-third, and the Bellefontaine Railway Company, the Cleveland, Columbus and Cincinnati, and the Cleveland, Painesville and Ashtabula Railroad Company, jointly, one-third. It will be perceived that the Pennsylvania Railroad Company failed to unite in this arrangement.

The following extract from the sixth annual report of the board of directors of the Pittsburg, Fort Wayne and Chicago Railway Company, recently submitted to its bond and stockholders, explains the relations and objects of the associated companies in entering into the contract with us:

"The relations of this company with connecting roads and lines have not been materially changed during the past year, excepting an arrangement for the working of the St. Louis, Alton and Terre Haute Railroad for a period of ninety-nine years, jointly with the Indianapolis and Cincinnati Railroad Company and the several companies owning the three roads between Indianapolis and Erie, Pennsylvania. The companies agreeing to work the road are to pay thirty per cent. of the gross earnings until they reach \$2,000,000 per annum, and twenty five per cent. of the gross earnings which exceed \$2,000,000, and less than \$3,000,000 per annum, and twenty per cent. of all gross earnings over \$3,000,000 per annum, and have guaranteed to the St. Louis, Alton and Terre Haute Railroad Company a sum of \$450,000 a year under the arrangement. The condition of their property at the time the arrangement was made was such as to require some advances on the part of this and the other companies to put the track and equipment in a condition so as to realize profitable results. This is being done, and will be continued to some extent during the current year, after which it is believed that the road will yield a profit to the companies working it.

"The object of your board of directors in entering into the arrangement for operating the St. Louis, Alton and Terre Haute Railroad was to harmonize all interests east of Indianapolis in the working of the single line of road from Indianapolis to St. Louis, in such way as to give to the several roads and lines east of Indianapolis their several fair and equitable proportions of the business east from St. Louis by this route, and at the same

time remove all temptation from the parties in an effort, each for itself, to get an exclusive contract of the single railway line west of Indianapolis. For nearly a year previous to the consummation of the arrangement, each of the lines of road north and south of your road has been engaged in efforts to obtain exclusive control west of Indianapolis, the effect of which, if accomplished would have been to cut this company off from all St. Louis business excepting by the way of Chicago. When, therefore, the plan was suggested to your board of directors to join with all the other interests in an arrangement for working the line between Indianapolis and St. Louis for the common benefit on an equitable basis, it seemed so eminently to the interests of this company, as well as to all, that they did not hesitate to commit this company to the plan. Unfortunately, before the final signing of the papers, and the formal taking possession of the property, the Pennsylvania Railroad Company withdrew from the arrangements for reasons which the other parties were not, and have not yet been able to appreciate, and consequently they were not willing to adopt them, and thus break the pledge entered into by them with the St. Louis, Alton and Terre Haute Railroad Company. It is hoped, as it is very desirable, that the Pennsylvania Railroad will yet join in the arrangement, and thus harmonize all interests, as was originally designed."

Since they took possession of the main line very considerable expenditures have been made upon it, and its condition has been materially improved.

The gross earnings of the road for the first five months, from 1st January to 31st May, inclusive, were..... \$842,447 19

The gross earnings of the main line for the seven months, from 1st June to 31st December, were, as reported..... 1,187,832 59

The gross earnings of the Belleville Branch, for the same time, were 188,122 56

Total..... \$2,218,402 34

The gross earnings for the year 1866, were..... \$2,250,142 54

Showing a decrease for the year of \$31,740 20 as compared with the previous year. The loss was in about equal proportion on freight and passenger traffic.

The business of the road during the winter months has been light, owing measurably to the severity of the winter and the obstructions in the river. With the increased facilities and improvements of the road-bed and its equipment, and the favorable prospects of the incoming crops, the business of the current year, will, it is expected, prove satisfactory, and it is hoped will show a gain on that of last year.

The attention of the board will now be directed particularly to the Belleville Branch. A negotiation has been pending for some time with the Belleville and Southern Illinois Railroad Company, for the extension of this branch to Duquoin, and it is hoped that some satisfactory arrangement will yet be made.

The business of this branch for the year 1867, was very satisfactory. By the contract for the operating of the main line, so much of the equipment as had been used in and appertained to the business of this branch was reserved for its use.

The settlement with the holders of preferred stock was made in accordance with the

proposition contained in the circular, at the meeting held on the 15th of August last, with the unanimous consent of a large majority in interest of the holders of preferred stock, and also of the holders of preferred second mortgage and income bonds, who were represented at the called meeting for that purpose.

BALANCE SHEET, DECEMBER 31, 1867.

To earnings from all sources:

July 1, 1862, to Jan. 1, 1863	\$ 632,712 20
Jan. 1, 1863, to Jan. 1, 1864.....	1,564,913 14
Jan. 1, 1864, to Jan. 1, 1865.....	2,084,074 32
Jan. 1, 1865, to Jan. 1, 1866.....	2,240,743 53
Jan. 1, 1866, to Jan. 1, 1867.....	2,250,142 54
Jan. 1, 1867, to Jan. 1, 1868.....	842,447 19
	<hr/>
	\$9,605,033 02

Due on ac'ts audited	\$3,536 42
Due Terre Haute & Richmond Co.....	4,315 92
Due agents of Co.....	2 70
Due on income tax...	14,879 52
Due individuals	4,511 40
Due Belleville Br'ch,	134,514 10
Due Treasurer.....	705 33
	<hr/>
	162,465 39

Due Contractors, Main Line.....	\$348,900 42
Due interest.....	5,426 25
Due receivers of T. H., A. & St. L. R.R. Co.....	37,682 78
	<hr/>
	392,009 45

Due first mortgage bonds.....	2,200,000 00
Due second mort. preferred bonds...	2,800,000 00
Due second mort. income bonds.....	1,700,000 00
Due pref. stock.....	2,040,000 00
Due common stock, 2,300,000 00	
	<hr/>
	11,040,000 00
	<hr/>
	\$21,192,507 86

By amount of accounts audited:

July 1, 1862, to Jan. 1, 1863.....	\$354,281 38
Jan. 1, 1863, to Jan. 1, 1864.....	1,131,333 86
Jan. 1, 1864, to Jan. 1, 1865.....	1,583,307 58
Jan. 1, 1865, to Jan. 1, 1866.....	1,752,185 25
Jan. 1, 1866, to Jan. 1, 1867.....	1,723,378 15
Jan. 1, 1867, to Jan. 1, 1868.....	739,052 24
	<hr/>
	\$7,283,538 46

Paid on charter liabilities, Jan. 1, 1863.....	\$17,444 20
Profit and loss.....	2,321 12
	<hr/>
	20,765 32

Cash in Bank	\$13,215 50
Due from agents.....	5,923 37
Due from suspense account.....	25,687 14
Due from real estate account.....	18,450 90
Due from Alton passenger depot.....	9,044 55
Due from contractors, St. L. A. T. H. R.R.....	179,143 95
	<hr/>
	251,465 41

First mortgage coupons.....	\$787,877 25
Preferred second coupons.....	918,274 07
Income second coupons.....	572,150 35
Preferred stock.....	237,837 00
Sinking fund.....	87,500 00
Capital stock.....	11,040,000 00
	<hr/>
	13,643,738 67

\$21,192,507 86

The Detroit & Bay City R. R. Meeting.

[From the Detroit Advertiser and Tribune.]

BAY CITY, June 12.—The meeting of the friends of the newly-projected railroad from Detroit to Bay City, running through Macomb, Lapeer, and Tuscola Counties met in this city this afternoon to hear the report of the surveyors with reference to the facts disclosed by an examination of the proposed line, and to take such action as should be deemed best under the circumstances. The attendance from all parts on the line is good.

The surveyors' report makes the road 101 miles long, running through Almont, Lapeer, Columbiaville, and Vassar. The road is very straight and level, the only heavy grade being between Columbiaville and Vassar. There is an abundance of good timber, stone and gravel on the line. There are twelve streams to be bridged. There is a good agricultural country through to Lapeer, and the remainder of the line is pine. From the Milwaukee Junction to Utica the road will be built on the old grading.

The estimated cost of building the road is put at \$1,695,000, of which the iron will take \$825,000.

Mr. W. H. Craig, of Detroit, explained that the proposition submitted to the Board of Trade was that the counties through which the road passes should first grade and prepare the road for the iron, and Detroit do the rest.

To this proposition, however, Bay City and the intervening counties demurred, insisting that money must be raised at the same time and expended by both parties, but that the county is willing to raise an amount of money sufficient to grade and tie the road.

Mr. Craig replied that Detroit wants a through northern route to the straits, and not merely a local route to Bay City alone. For this she will raise \$500,000. This plan of the relative work to be done was opposed by Bay City and the country towns along the line. The result, finally, was organizing for the construction of the road from Bay City to Lapeer, articles of association being drawn for that purpose, leaving the extension of the road from that point to Detroit to be a matter for the future, if deemed desirable, many friends of the project, in the shape it finally took, claiming that they could switch off at Lapeer and go to Port Huron, where a junction could be effected with the Grand Trunk.

SECOND DISPATCH.

A second meeting was held this evening when matters assumed a somewhat different phase from what they were at the close of the afternoon meeting. W. H. Craig, on behalf of Detroit, subscribed \$25,000, and a company was organized for the entire route, to be called "The Northern Michigan Railway Company," with a capital stock of \$2,000,000. The following stock subscription commissioners were appointed: W. H. Craig, Detroit; C. F. Malory, Romeo; W. L. Fay, Bay City; B. W. Huston, Jr., Vassar; Henry Stephens, Almont. The amount of stock subscribed on the spot was \$104,700, being a sufficient amount to perfect an organization of the company.

The company was accordingly duly organized, and the following Directors were chosen: W. C. Duncan, E. M. Clark, John J. Bagley, of Detroit; S. Brownell, Utica; L. Anders, Washington; Rodney G. Hart, Wm. Peters, E. J. White, Lapeer; Townsend North, Vassar; D. H. Fitzhugh, Jas. Shearer, Wm. McEwen and A. C. Maxwell, Bay City. The

following officers were then chosen: President, D. H. Fitzhugh; Vice-President, T. North; Treasurer, Jas. Shearer; Secretary, A. C. Maxwell.

The meeting then adjourned.

The Kansas Pacific Railroad.

An earnest effort is being made to secure, before the adjournment of Congress, favorable action upon the application of the Kansas Pacific Railroad for additional subsidies to secure its extension beyond the point contemplated by the existing laws. If national aid is to be granted to any railway project, this line should certainly receive it. Even if the testimony of forty prominent railway managers of the country, and the endorsements of a large number of boards of trade be disregarded, the statements of the military officers in command on the plains and in New Mexico, demonstrating its utility in diminishing the cost of supplies to frontier posts and in enabling the Secretary of War to disband regiment after regiment as settlements advance, furnish an irresistible argument in its favor. Many millions of dollars have already been wasted in fruitless campaigns against the Indians and in maintaining garrisons at distant points, at an enormous expense, and it is certainly better, in a purely financial point of view, to loan the credit of the Government on a security that insures what are virtually immediate returns, in diminished military expenditures, than to continue squandering vast treasures in a mode which yields no permanent benefit. The natural resources of the country which would be opened up to civilization and development if the Kansas road were completed to the Pacific are of the most varied description, and it will not be at all surprising if eventually New Mexico and Arizona prove the most productive of the great gold and silver bearing districts of the far West. Through a railway only, could the opportunities necessary for testing their capacity and developing their latent wealth be acquired. Besides, justice to the commercial interests of the Middle and Southern States requires the extension of the proposed additional outlet to the Pacific, and, in the broad belt of territory lying between the 35th and 41st parallels, there will be found in future years ample traffic to sustain at least two trunk lines. If the commerce of the Pacific coast with Asia attains gigantic proportions, the economical distribution of the products of the East through all sections of this country will be greatly facilitated by the proposed line and the contemplated transportation through the United States, to Europe, of silks and teas, would be doubly assured by the guarantee against delays or accidents which two lines would afford. The Kansas Pacific road unites in its support more important interests than any other project seeking assistance from Congress, and it would accomplish more objects of a truly national character.—*Mining Reg.*

The receipts of the Western Union Railroad Company, for the week ending June 21:

	1868.	1867.	Inc.	Dec.
Freight.....	\$14 057 62	\$10 241 86	\$3,815 76	.....
Passengers.....	3 426 10	3,403 25	22 85	.....
Express and Tel..	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$18,208 72	\$14 340 11	\$3,868 61	.....

Receipts from January 1, to June 21:

1868.....	\$299,593 80
1867.....	246,446 96
Increase.....	\$53,146 84

The Order in Point of Time of Railway Building in the United States.

In Poor's Railway Manual the following interesting exhibit is given of the dates at which various railways in the country were built:

"On the first of January, 1849, a continuous line of railway was first formed between Boston and New York by the completion of the New York and New Haven Railroad. In the spring of 1851, the Erie Railroad was completed from the harbor of New York to Lake Erie—an event of much importance to the commerce of the country. In the same year a continuous line of railway was opened between Boston and the St. Lawrence, by the completion of the Vermont Central and Vermont and Canada railroads—the line from Ogdensburg to Lake Champlain having been opened in 1850. In the fall of 1851, the Hudson River Railroad was completed, giving to the city of New York a second line of railway to the great lakes; but some ten years after the city of Boston had secured such a connection.

"In 1852, another important extension of the railway system of the country was made by the completion of the Michigan Central and Michigan Southern railroads, from Lake Erie to Chicago. The lake served as a connecting link till 1853, when, by the opening of the Cleveland and Toledo Railroad, a continuous line of 1,000 miles of railway was formed between New York and Boston and Chicago.

"The Mad River Railroad, now known as the Cincinnati, Dayton and Eastern, was commenced in 1835, and a portion of it completed in 1838. In 1848, in connection with the Little Miami, it formed the first continuous line of railway from Lake Erie to the Ohio river. The Little Miami was commenced in 1837, and completed to Springfield in 1846. The next important line constructed in Ohio was the Cleveland, Columbus and Cincinnati, which was commenced in 1848 and opened in 1851. The completion of this road formed the second line between the lake and the Ohio. The Cleveland and Pittsburg, the third line making the same connection, was opened in 1852. Of the lines running east and west in this State, the Central Ohio was opened from Wheeling to Columbus in 1854; the Marietta and Cincinnati in 1857; and the Pittsburg, Fort Wayne and Chicago, to Chicago, in 1858.

"In Indiana, the Madison and Indianapolis, one of the roads first constructed in the West, was opened in 1847. The first line running east and west through this State, and made up of the Indiana Central and the Indianapolis and Terre Haute, was opened in 1853. The next line, having a similar direction, was the Ohio and Mississippi, opened in 1857. The New Albany and Salem, now the Louisville, New Albany and Chicago, the first line connecting Lake Michigan and the Ohio and lying wholly in Indiana, was opened in 1854.

"In Illinois, the first line undertaken was the Sangamon and Morgan, a portion of which was opened as a State work in 1839. This road now forms a part of the Toledo, Wabash and Western. The second line opened in Illinois was the Galena and Chicago, which was commenced in 1849 and opened for a distance of ten miles in June, 1850. The railway first opened in this State from Lake Michigan to the Mississippi river was the Chicago and Rock Island, in February, 1854. This connection marked a very important ex-

tension of the railway system of the country. The second line to the Mississippi, made up of the Galena and Chicago and the Illinois Central, was opened early in 1855. The Chicago and Alton was opened in 1855; the Chicago, Burlington and Quincy, to the Mississippi river in 1856; the Milwaukee and Prairie du Chien in 1857; the La Crosse and Milwaukee, now a part of the Milwaukee and St. Paul, in 1858; and the Western Union in 1862. The Chicago branch of the Illinois Central was opened from Chicago to Cairo in 1856.

"The next important extension westward was the Hannibal and St. Joseph, which carried the railway system to the Missouri in 1859. The next line between these rivers, made up of the Chicago, Iowa and Nebraska, and the Cedar Rapids and Missouri, was completed in 1866. The western terminus of this road is the point of commencement of the Union Pacific Railroad, which has already ascended and crossed the summit of the Rocky Mountains, 560 miles west from the Missouri, 1,954 west from Chicago, and more than 2,000 miles west from New York!

"Of the lines constructed through Central and Southern Illinois, the Terre Haute and Alton was opened in 1854, and the Ohio and Mississippi in 1857. From St. Louis, westward, the Pacific Railroad of Missouri was completed in 1865, to a connection with the Union Pacific Railroad, Eastern Division, which now extends to the western boundary of the State of Kansas, a distance of nearly 400 miles from the western boundary of Missouri, and 700 west from St. Louis.

"Another important extension made in 1867, was the completion of the line from Milwaukee to St. Paul, Minnesota, a point distant nearly 1,500 miles from New York.

"The people of this country were fully engrossed in the construction of canals at the very moment of the successful application, in England, of steam power to locomotion. With steam as a motive power, the advantages of railroads over canals, in being almost everywhere practicable, and capable of being operated at all seasons of the year, were readily appreciated, and numerous projects for their construction speedily followed. As in England tram rails had previously been in use at Quincy, Massachusetts, for the purpose of transporting granite from the quarries to Neponset river; and at Mauch Chunk for the transportation of coal from the mines to the Lehigh Canal. The first railroad undertaken was the Baltimore and Ohio. This road was chartered in 1827, and the work of construction commenced July 4, 1828. It was opened to the city limits in 1830; to Frederick, 62 miles, in 1831; and to Point of Rocks, 69 miles from Baltimore, in 1832. At this period its progress was, for a long time arrested by a controversy with the Chesapeake and Ohio Canal in reference to the right of way.

"Another of the pioneer roads was the Mohawk and Hudson, afterwards the Albany and Schenectady. This work was commenced in 1830 and opened in 1831. Both this and the Baltimore and Ohio Railroad were at first worked by horse power, except two incline planes upon the former worked by stationary engines. Upon the Baltimore and Ohio Railroad a locomotive engine, probably the first constructed in this country, was first used in 1831. The first locomotive used upon the Mohawk and Hudson, in 1831, was of English manufacture, weighing six tons. This was found, however, to be too heavy for the superstructure of the road, and a lighter one manufactured at the Cold Spring Works, in

the State of New York, weighing three tons, took its place.

"Another railroad, constructed at an early day, was the South Carolina, from Charleston to Hamburg, opposite Augusta, Georgia, a distance of 135 miles. It was opened in September, 1833, and at that time was the longest continuous line of railroad in the world.

"Only a very moderate degree of success, either financial or commercial, attended the railroads first constructed in this country. They were rude and unsubstantial structures, involving a heavy outlay for repairs, and were very inadequate to the service even then required of them. Many of them were upon routes having little traffic, and were consequently almost entirely unremunerative. Time was required for the improvements which have given us the perfect machine of the present day, and for the development of sufficient commerce and wealth to make rail ways remunerative. Still, the construction of railways was steadily persisted in, and by the close of the year 1835, about 1,000 miles had been completed."

NEW YORK COURTS AND SPECULATORS.—The injunction in the case of the North-Western Road presents no new features, and does not check the disposition to buy the stock at advancing prices. The ruse of getting an injunction from a party so respectable as Mr. Justice Ingram does not alter the general belief that the whole affair is a corrupt proceeding to aid speculators against the stock. So fully impressed is the street that injunctions are simply a part of modern stock gambling, that no sooner is one announced than universal inquiry is made as to "who owns the judge," the last case forming no exception, unjust as the imputation is. This whole business of injunction has been overdone. It has brought the Courts into contempt, and subjected railway corporations to embarrassments from which, if continued, they will naturally free themselves by withdrawing their offices from New York. In view of the importance of this question of interfering with a preemptory injunction, which in effect declares the managers of a corporation to be dishonest, often upon the *ex parte* statements only of persons used as tools by knaves too shrewd to appear as principals, we would suggest to judges whether an order showing cause why an injunction should not issue would not be as creditable to the bench and commercial honor of New York as the recent summary mode of proceeding, which has driven corporations from the State to avoid the Courts, which, from protectors against dishonest men, have been sought and used as tools against the *bona-fide* owners of property.—*Tribune*.

The State of Tennessee has advertised to pay its July interest at the Fourth National Bank. The railroads for whose benefit the bonds are issued, have responded very well, but will do better next January, under the stimulus of the Legislature, which holds an extra session in November. At this meeting the Legislature will probably order the preemptory sale of any road which fails to comply with the law, and so reduce the State debt materially. Missouri has found this plan to work well, and it can not fail of good results in Tennessee. The roads of this State are, as a whole, very valuable, and their managers only require a little stimulus in the way of fear of being ousted to make them do their duty to the Treasury of Tennessee.—*Tribune*.

The Yo-Semite Valley.

A Congressional Committee has now under consideration a bill of great importance, which concerns not only the State of California but the whole of the United States; and not only our own country, but, we may well say, the whole civilized world. It is a bill giving the authority of Congress to two men to take the first steps in making the most magnificent valley in the world a mere private possession; and if it shall pass it will not be long before some of the most interesting features of the famous Yo Semite—next to Niagara, the greatest wonder of America—will have disappeared before the ax and saw of these speculating squatters. The facts are simply these: A few years ago Congress passed an act giving to the State of California, in trust, the Valley of the Yo-Semite, to keep it for ever as a great public pleasure-ground; to permit no settlement in it, to prevent the destruction of its scanty timber, and to preserve it, as far as possible, in its natural state, for the delight of visitors from every country and for the study of scientific men. California accepted the trust on these conditions, and appointed a commission consisting of such men as Frederick Law Olmsted, who, at that time lived in San Francisco, and had passed an entire year with his family in the Yo Semite, Professor Whitney, the geologist, and a few other well known citizens, to lay out roads, build bridges, and, while doing what might be necessary to make the Valley accessible, to keep its beauty unimpaired, and prevent its suffering any injury. It was almost too much to hope that a scheme at once so simple and so grand as this could be carried out without interference from mercenary people, and, accordingly, it was not long before two squatters put in a claim for some six hundred out of the eleven hundred acres contained in the Valley. They did not ask for an equivalent in money; they wanted the right to settle on the land and occupy it, and they pressed their claim so vigorously that the Legislature of California, naturally tender toward squatters, granted it at last, in defiance of the acknowledged right of Congress to refuse its consent to such a breach of treaty. Gov. Haight vetoed the bill when it came before him for signature, on the simple ground that the State had accepted the Valley in trust, on certain clearly-defined and well understood conditions, which she had no right either to forget or to violate. But the Legislature easily passed the bill over the Governor's veto; and the two squatters, secure of victory, appealed to Congress to ratify what the Legislature had granted. Nor was this all. Confident in their ability to persuade Congress to stultify itself, they have not waited for its permission, but have put up saw-mills and gone to work to cut down trees in the Valley—where, owing to their being so few, every tree is precious—and are making haste to plant themselves beyond the peradventure of a removal.

Certainly, we do not think we make too large a claim when we ask of Congress, in the name of the whole country and of the world of civilized men, to refuse this petition. If these squatters have a just claim—and in the case of one of them, at least, this claim is denied—let them be paid in money for their land at a fair, nay, at a generous valuation; but let Congress absolutely refuse to acknowledge their right to settle upon the land itself, and so defeat the object for which the Valley was ceded to the State. That

object was one of the largest and noblest that any State any where, or at any time in the world's history, has proposed to itself with a view to the health and enjoyment of its people; and the fact that the General Government gave the land for such a purpose, and that the State accepted it, showed a high state of civilization. Barbarian or half-civilized States do not so respect great natural wonders, nor propose to devote them to the enjoyment of the world. It will be a day of long regret and mortification when this noble purpose shall be frustrated and the high ideal of a State shall be sacrificed to the mercenary grasping of squatters. If Californians do not see their own interests more clearly, and if they will not respect the rights of the whole country, it is the bounden duty of Congress to protect us in the possession of this most splendid of Nature's gifts to the American people, and not to suffer this discredit to be put upon us in the eyes of the world.

We fully endorse all that the *Tribune* says in the above, and hope Congress will have no hesitancy, and make no delay in not only expelling but in punishing those vandals of the human family who would desecrate all that is beautiful of nature, and sell the throne of God for gain, could they but obtain a pretext on which to found a title.

The *London Railway News* of the 6th inst. announces that the arrangement of the open debt of the Atlantic and Great Western Railway may now be said to be complete. The attempt of one of the creditors to enforce proceedings in the Court of Bankruptcy against the Financial Agent, James M'Henry, has been barred by a deed executed by creditors representing nearly \$14,000,000 of the whole indebtedness, and it is proposed to follow up this adjustment by at once taking steps for the removal of the receiver, so that the management of the affairs of the company may again be entrusted to its Directors.

THE RAMIE PLANT.—The Ramie plant, which was introduced into this country from Java, to the soil of which it is indigenous, is attracting much attention in the South. At an agricultural fair recently held in Alabama it was one of the special features of the exhibition. It is claimed that, if properly cultivated and worked, it will eventually take the place of cotton, and supply any deficiency in that great staple production. Its fibres are said to be much stronger and finer than the best flax; that they are as fine as sea-island cotton, and that after cleaning they become very soft and white, and take colors as readily as the finest wool or silk. Several articles of clothing made from this fabric were exhibited at the fair referred to, and were particularly noticed for the strength and beauty of the material. The cultivation of the Ramie plant has been successful on a number of plantations in Alabama.

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	256	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
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Leave Cincinnati.....	6,00 a.m.....	7,00 p.m.
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40 p.m.....	4,03 a.m.
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30 a.m.....	10,38 p.m.
" Paterson.....	2,33 p.m.....	6,17 a.m.
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00 a.m.....	5,00 p.m.

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and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

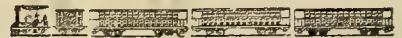
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at north-east corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15 foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 7:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at
1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

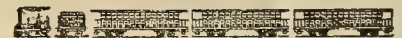
2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

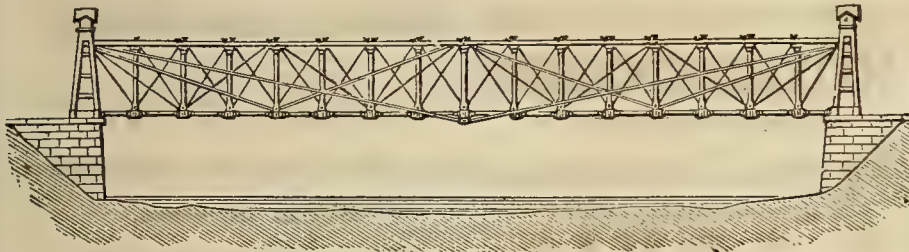
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and construction of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS]

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

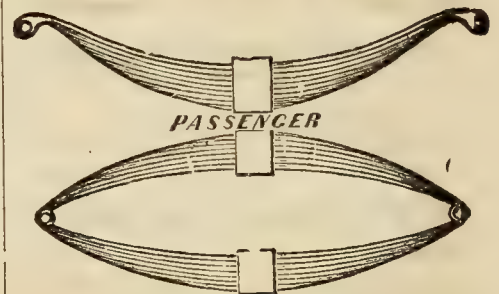
68 Broadway, New York,

121 West Front Street, Cincinnati.

350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE

THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to
Baltimore.L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Rich-		
mond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Bureau House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without
Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph,
Jefferson City, and all points on the Lower Mis-
sissippi River, and on the the Illinois
Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 30 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine
Street; Corner Front and Broadway; and at Depot, Foot
of Mill Street.C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis, and
Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
--	--------	---------

Lawrenceburg Accommodation.....	10.0 am	8.35 am
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Connersville and Cambridge City.....	4.00 pm	9.15 am
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Lawrenceburg.....	4.45 pm	2.30 pm
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Through Tickets can be obtained at the Burnet House
Office, corner of Third and Vine; River Office, corner of Plum
and Walnut Street and River; and at Depot, corner of Plum
and Pearl streets. The splendid Passenger Depot of the
I. & C. Railroad is about a mile nearer the business center
of the city than the Depot of any other railroad, and with-
in a few squares of the Post-office and principal hotels and
Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.

CORRUGATED SHEETS, OF ALL SIZES, CON-
stantly on hand, painted, and ready for shipment,
with instructions for applying them.MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast char-
coal Pig Iron, refined with Charcoal in the old-fashioned
Forge Fire, hammered into a Bloom from which Iron
hammered. The whole operation from ore to finished Iron
is conducted at our own Works June 9THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptne
the best and latest improvedCOAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central
Railroad, near the center of the State, possess superior
facilities for forwarding their work to any part of the coun-
try without delay.JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boll-
er Flues—from 1½ to 10 inches outside diameter, cut
to definite lengths.Wrought Iron Welded Tubes—from ½ inch to
8 inches inside diameter, with screw and socket connec-
tions, for Steam, Gas Water, or other purposes, and fit-
tings of every kind to suit the same.Wrought Iron Galvanized Tubes—strong
and durable, designed especially for Water purposes.Cast Iron Gas or Water Pipe—1½ to 24 inches in
diameter, and branches, for same, &c.,

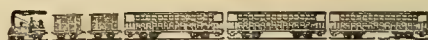
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M.
(Express); 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20
A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2
P. M. (Express)
SUNDAY TRAINS—Leave Philadelphia for Baltmor
at Washington at 4.15 A. M., and 11.00 P. M. Leave at
timore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave
Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, }
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, JULY 2, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express.....	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION.			
Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:25 P. M.	
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:05 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Jor Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

Our Sick Neighbor — Mexico.

CAN WE HELP HER, HOW?

WILL IT PAY?

The Republic, or more properly, the *nominal* Republic of Mexico, is not, and never has been in a perfectly sound condition. At the present moment, however, the malady has arrived at that point that requires a system of medication other than blood-letting. It is perhaps not pertinent, or necessary, to enquire into the causes that have produced this chronic derangement, or whether it can be cured? It is enough for us to know that the patient is sick, determined to take physic and wants us to furnish it!

The New York *Herald* says: "Minister Romero is here and wants two things—money and an acceptable American Minister. We have already expressed our opinion in regard to the money. We will simply repeat that opinion and say that Mexico ought to get no money from us. She has no right to it."

Now, the *Herald* may be correct in its conclusions, as to the abstract *right* of Mexico to ask money from us. But does she ask for money? If so, how is it expected to be obtained, and what is to be the consideration? Benevolence is one of the most exalted of the Christian virtues; nay, it is a luxury, which, for its own sake, is not often indulged in. The charities of the world, and even of the Church are strongly tinged with pharisaical display, and are either forced contributions, the result of vanity, or are contributed in the anticipation of a *quid pro quo*. The injunction to "let not your right hand know what the left hand doeth," is not the style of the present day; *never* has been the rule among nations. As the "Law of Nations" is not likely to be changed for this special occasion, we take it for granted that Mexico, if she wants money, proposes to give a fair consideration. The proposition is therefore not one for *charity* or *benevolence*. By the Mexican constitution it is made impossible for the government to sell any portion of its territory. This is a concession in their fundamental law, to a national trait of the individual as well as collective Mexican character. It is well known that no matter how much a Mexican may be in need, he dislikes to *sell* his property, but is always willing at half price to mortgage it to obtain money, and cheerfully yields it if unable to redeem it at maturity. It is upon this hypothesis, we contend, that Mexico not only has a *right*, but has acted with the highest honor in thus applying to us to meet her wants. Suppose, for a moment, that Mexico should apply to England, France, or Russia, and offer to pledge a portion of her territory, how long would it be before we

would rend the heavens with our howlings at its enormity, and bluster about the Monroe doctrine.

The great question is, "Is it the interest of the people of the United States to assist Mexico to obtain money;" and if yes, how? That the United States has not the money to loan does not admit of a question; but if our Government should guarantee thirty millions of bonds, having twenty-five years to mature, no one will doubt they would meet with ready sale at a fair price. It would add to their market value, to have them made receivable for public lands in Mexico, at a fixed rate per acre.

For this endorsement, or loan of credit, we suggest a mortgage on Lower California, Sonora and Chihuahua, or what would be better, from a point on the Gulf of Mexico, beginning at the mouth of the Rio Grande, and running due west to the Gulf of California, of course including the whole of Lower California. This territory would contain about 400,000 square miles, and has at present a population of not over 350,000.

Of this thirty millions, we further suggest as additional security for the payment of the principal and interest of the loan, that one-third of it should be devoted, under joint commissioners to be expended in improving the territory mortgaged by the construction of railroads connecting it with our system, to be constructed to or near El Paso, with such a reasonable treaty of protection and reciprocity that would not prevent the Americanizing, and development of the whole country included in the mortgage; while the interest should be secure to a like commission by the customs receivable, on the basis of the U. S. Tariff, from the same territory.

An arrangement of this nature could be made so as to be beneficial alike to both parties. It would secure to the United States the territory mortgaged beyond a doubt, without risk and without wrong; while Mexico would be relieved of present embarrassment, and have a fair opportunity to start afresh in the world.

The *Herald* recommends, that for Minister we send PHIL SHERIDAN, this we heartily endorse, but cannot approve of the proposed accompaniment, deeming it superfluous, and a waste of means in pomp and show, and would cost a good deal more than the plan we suggest. It would also load us with a territory to care for that we do not want the bother of.

The *Herald* says:

"Phil Sheridan is the man we recommend. Only we wish Phil to be escorted by a becoming retinue. We advise that he be accompanied by twenty-five thousand men. Ten thousand might do. It did before. But considering the improvement that Mexico has made in the military art in the interval, and considering what is due to one of our most distinguished generals, we recommend a retinue of twenty-five thousand men, with the ordinary following."

Railroads West of the Mississippi and their Connections with the Pacific.

In the RECORD, now in its sixteenth year, we have from time to time recorded and described the various new railroads as they progressed in the North-west. At the time we began the RECORD (1853) there were no railroads beyond the Mississippi, and but few miles in the North-west, except in Ohio, Indiana and Illinois, but the railroad wave rolled on and has now crossed the Rocky mountains! Yes, we are startled to hear that the Union Pacific Railroad has already got 645 miles, and is now at Medicine Bow River. The thing is astonishing, almost a miracle. Last autumn, as winter approached, the Union Pacific had reached the summit of the Rocky mountains, and is now far beyond. The dreams of the Arabian Nights Entertainment are realized, although, not in the way the Arab Romancers imagined. Some things are done more remarkable than anything they imagined, but certainly not in such fantastic and useless ways.

In order that we may form some idea of the present progress of railroads in the far West, we will make a little digest of what is done.

First, we may remark, that it is quite evident, that in passing from the east to the west of the Mississippi and continuing in their course to the Pacific, there are certain points which, either by nature or by gravitation of commerce, would be points of railroad transit. Beginning at the mouth of the Mississippi, we have: 1, New Orleans; 2, Vicksburg; 3, Memphis; 4, Cairo; 5, St. Louis; 6, Hannibal; 7, Keokuk; 8, Burlington; 9, Rock Island; 10, Dubuque; 11, La Crosse; 12, St. Paul. There are two or three other points (like Quincy and Clinton) where railroads cross, but these are the main railroad points on the Mississippi, and with which the others connect. To get a view of what is done west of the Mississippi, let us take the railroads beyond, by States, and connect them with these points.

1, LOUISIANA.—Railroads in Louisiana all have reference to New Orleans, and they are as follows:

1, New Orleans & Opelousas Railroad, 80 miles. This seems to be the only railroad west of the Mississippi, running from New Orleans.

2, Vicksburg, Shreveport & Texas Railroad. This road is in operation, though we cannot find out how far; we believe, about 80 miles. The war arrested the plans for railroads in the South, and destroyed some roads already made. On the whole, we conclude, that there are only 160 miles of railroad in Louisiana, west of the Mississippi.

2, ARKANSAS. The only railroad in Arkansas, in actual operation is, we believe:

1, Memphis & Little Rock Railroad, 49 miles. This road is not yet completed to Little Rock.

3, MISSOURI. This embraces railroads running from the three points, Cairo, St. Louis, and Hannibal.

1, Cairo & Fulton Railroad.....	37 miles.
2, St. Louis & Iron Mountain R. R.	87 "
3, St. Louis & St. Joseph, do.....	170 "
" Columbia Branch.....	22 "
" Moberly Branch.....	16 "
" Brunswick Branch.....	39 "
4, Pacific & Missouri River R. R.....	309 "
" South-west Branch.....	89 "
5, Hannibal & St. Joseph R. R.....	206 "
" Quincy Branch.....	15 "

West of the Mississippi in Missouri 990 miles.

There are several other lines and branches planned in Missouri, but the war interrupted many such schemes in the States which were in the theatre of war. In addition to the above from the Mississippi, there are:

6, Platte Co. Railroad, to Atchison,	45 miles.
7, Kansas City Branch.....	15 "

There are in Missouri, and all west of the Mississippi, 1,050 miles of railroad. As the State has over 60,000 square miles of surface, it may be counted certain that there will be soon made at least three times as many miles of railroad as there are now there. The State is rich and will be very populous.

4, IOWA.—The state of Iowa is progressing very rapidly in a well digested system of railroads. Lying on the Mississippi, and running west in the form of a parallelogram to the Missouri, it is admirably adapted both to the making, and the profit of railroads. Lying, also, on a great plain they are easily made. It is obvious that the traffic over that plain, by rail, will be immense, especially, as all roads running west in Iowa connect more or less directly with the Union Pacific. The principal points in Iowa, on the Mississippi, for railroads, are Keokuk, Burlington, Rock Island, Clinton, Dubuque and McGregor.

The roads constructed are:

1, Keokuk & Des Moines.....	162 miles.
2, Burlington & Missouri River...	156 "
3, Mississippi & Missouri.....	133 "
" Muscatine Branch.....	50 "
4, North-west'n (Clinton & Omaha)	356 "
5, Dubuque & Sioux City.....	143 "
6, South-western.....	56 "
7, McGregor West'n (to Adams)	96 "

In Iowa (west of the Mississippi) 1,152 miles.

Thus we have in Iowa 1,152 miles already completed, and among these are some of the most important lines in this country. The Chicago & North-western line makes in all, from Chicago to Omaha, 494 miles, and since the Union Pacific is 645, we have in all 1,139 miles continuously west from Chicago to Medicine Bow River in the Rocky mountains. The other lines to the Missouri are not less important, and at an early day lateral lines will be made, so that it is now certain that Iowa will be a great railroad state.

5, MINNESOTA:

1, St. Paul & Pacific R. R.....	90 miles.
2, Minnesota Valley.....	64 "
3, Minnesota Central.....	119 "
4, Winona & St. Peters.....	105 "
5, Southern Minnesota.....	30 "

West of the Mississippi, in Minnesota, 408 miles.

There are four hundred miles of railroad in Minnesota, in the North-west, one of the youngest states in the Union. There are, in fact, eleven railroads in construction in Minnesota, but the above are the only ones in operation.

A writer in a recent pamphlet on Minnesota says:

"These lines, covering over 2,000 miles wholly within the limits of the State, are rapidly opening up some of the best lands in the world, by bringing them within easy reach of good markets. The different railroad companies are pursuing a liberal policy towards immigrants, offering them inducements as to price and time of payments, seeing that their own prosperity is identical with that of the State. St. Paul may be said to form the heart or centre of this net-work of the 'arteries of trade.'"

The great facilities which Minnesota possesses of sending her produce to market is not the least of her many advantages. The richest lands and the finest climate in the world are useless in a commercial point of view if not connected with the great trading emporiums by wide and accessible channels of trade. The broad bosom of the Mississippi sweeps our commerce to the Gulf of Mexico, and brings back the cotton of the South to be manufactured by our numberless water-powers; our railroads open another channel to the Atlantic coast; while by way of lake navigation, via Lake Superior and the great Pacific Railroad, connecting us with both the Atlantic and Pacific, afford ample and unequalled commercial facilities."

In addition to what is stated above, we may add, that the principal railroads in Minnesota have large grants of land, both from the National and State governments.

6, KANSAS. This is the first of the second tier of states west of the Mississippi yet organized.

Its railroads are:

1, Central Union Pacific.....	100 miles.
2, Pacific R. R. (E. D.) Kansas Branch.....	335 "
3, Leavenworth R. R.....	33 "

West of Mississippi, in Kansas.....468 miles.

7, NEBRASKA.

1, Union Pacific Railroad.....645 miles.

These make up the aggregate miles of railroad west of the Mississippi, as follows:

Louisiana.....	160 miles.
Arkansas.....	49 "
Missouri.....	1,050 "
Iowa.....	1,152 "
Minnesota.....	408 "
Kansas.....	468 "
Nebraska.....	645 "

Aggregate miles of Railroad

west of the Mississippi..... 3,929 miles.

At the present moment, we may count on 4,000 miles of railroad completed beyond the Mississippi, and we hazard nothing in saying, that in the next two years there will be as many more completed. The tide of immigration, and of enterprise is still flowing westward with wonderful rapidity.

Atlantic and Great Western Railway.

The announcement which we made last week respecting the settlement of the open debts of this company, contracted in this country by its financial agent, has been fully confirmed, and we may congratulate the holders of all classes of its securities on the fact of its representative having surmounted the difficulties which stood in the way of any permanent improvement of this great undertaking. The present would appear to be a fitting moment to consider what is the actual position of this railway, and the prospects which it holds out of a return to a system of coupon payment. Our readers may remember that at the beginning of last year, and shortly previous to the interruption of the payments of coupons, a circular was issued by the financial agent in this country, in which allusion was made to successful efforts to bring the securities of the company into discredit, and the representative of the railway here felt it his duty, in consequence of the statement which had been put forward, to ask the bond-holders to appoint a committee of investigation to inquire into the affairs of the company. Owing to the state of financial affairs in this country, the administration in America had become demoralized and reckless, and it was suggested, as the best means of preserving the property, that an application should be made to the courts of the United States to place the railway in the hands of a receiver. The committee was appointed, and gave the results of its investigation to the bond-holders, and also a very able and elaborate report by Mr. Trevethick on the condition of the line. A receiver was appointed, and the property thus effectually protected was put in a fair way to attain to its wonted prosperity. The reports which have since come to hand from the receiver show that in the seven months during which he had acted, he had been enabled to expend nearly £1,000,000 on putting the line into a perfect state of repair. Twelve months have now elapsed since the receiver was appointed, and there is every reason to believe that, under his management, the line has been brought into a thoroughly efficient condition. We may now, therefore, take stock, as it were, of the undertaking, and consider by what means its credit may be restored and the bond-holders receive a return for the capital which they have invested.

The actual position of the company is as follows:

First mortgage bonds	\$5,914,800
Second mortgage bonds	1,469,300
Consolidated bonds	17,379,500
Certificates of debentures	14,000,000
Shares.....	17,359,850
	<hr/>
	\$56,123,450

The authorized issue is \$30,000,000 bonds, and \$30,000,000 shares, but of these \$5,236,000 of bonds and \$12,641,150 of shares are represented by the certificates of debentures. These figures show the actual capital of the undertaking.

According to the report of the committee, and the estimate of Mr. Trevethick, the engineer appointed by them to examine the railway, there was required, in order to place the railway in first-class order, an expenditure of \$2,613,288. The arrears due upon unpaid coupons to first of April last year was \$1,409,196, and the floating debt in America was stated at \$1,000,000, making a total of \$5,022,484. So far as we can gather from the report of the receiver, the sum

required by Mr. Trevethick has already been almost entirely provided out of the earnings of the railway. The floating debt may be dismissed from consideration, as this is rather a matter connected with the credit of the company in America, than one bearing on the working of the railway. The arrears of coupons are, then, the only matters remaining to be dealt with.

There ought to be no great difficulty in arranging satisfactory conditions with respect to these arrears, and for the purpose of placing the concern on a sound and satisfactory basis, it would be advisable to effect some arrangement on the principle proposed by the Committee of Investigation. It appears to us, however, that inasmuch as the net earnings of the line have enabled the "receiver" to bring the railway into an efficient state at an earlier period than that anticipated, it would be possible also to bring about an earlier resumption of payment, and on more satisfactory terms than that contemplated by the committee. The divisional bond-holders, for instance, might be asked to capitalize two years' interest at 4 per cent., and by this arrangement they might then begin in less than twelve months from the present time to draw their full 7 per cent. as usual. We have no doubt that, taking into consideration all the circumstances of the case, this section of the bond-holders would be willing to make this small amount of sacrifice.

With respect to the holders of certificates of debentures a satisfactory arrangement might be made on the basis of a due recognition of their claims by the directors, and the substitution for existing securities of the recognized bonds of the company. They might, for instance, receive consolidated bonds in exchange to the extent to which the company possesses power to issue these securities, and for the remaining moiety they might take bonds in exchange for Niagara, Buffalo, and other shares, which, at the present time are, comparatively speaking, worthless, and which form part of the security deposited at the Bank of England. The company have the power to issue \$5,236,000 of consolidated bonds, these being held in trust for exchange with divisional bonds. Now, assuming an arrangement of this kind could be carried out, the holder of a certificate of debenture for £1,000 would receive consolidated bonds to the amount of \$2,500, the first coupons being due in April, 1870. He would have also a bond which might be called an income bond, to the same amount, and in addition to that, a bond for say \$700, representing the unpaid interest on coupons to 1870. He would, therefore, receive in exchange for his certificate of £1,000 a security of the nominal value, but recognized by the company, of \$7,500, or about £1,150, assuming the currency to be at par. Such an arrangement as this could hardly fail to be satisfactory to the debenture holders who have received £100 bonds at 90, with three years' interest at 8 per cent, thus reducing the actual price of the bond to 66.

The income bonds to be created would rank after the consolidated bonds, and they would commence payment from the close of the present year, say 3 per cent. for five years, 4 per cent. for five years, and 5 per cent. afterwards, until they were repaid at the end of twenty years. The effect of an arrangement such as that which we have shadowed out would be that the holders of these certificates of debentures would receive about 5½ per cent. on the par value of their investment, or something like 20 per cent. on the present market price.

The same principal of capitalizing coupons for a short period, as proposed for the certificates of debentures, might be applied to the consolidated bonds; and there is no reason to assume that the payment of these should be deferred to a later period than the end of 1870—the arrears, in the meantime, being capitalized and represented by the income bonds, bearing interest from the 1st of May of next year.

Objections have been, and will no doubt be urged against this principle of capitalizing arrears of interest; but upon this point we can not do better than quote the opinions of our able contemporary, the *Economist*, which stated:

"In place of cash, they (the bond-holders) get a well secured charge upon the undertaking, which is the next best thing to cash, and at the rate per cent. offered may be transferred at a premium when the unusual discredit of the times passes away. Of course it is hard for many to go without their dividends in money, but there is only a choice of evils. They can not in any case get the money now, and if they do not accept instead a charge upon the undertaking, they may never get anything at all through the confusion and litigation that may result from debts being left unpaid. And these considerations apply as much to preference as to ordinary share-holders. Both must alike go without their money now; both are bound up in the prosperity of the business, though it is too much the custom to put preference share-holders on the footing of debenture creditors; all would gain by setting affairs straight and abolishing temporary loans."

We await with considerable interest the report of the "receiver" of the line for the twelve months during which he has been in office; but we have reason to believe that the results which will be shown by that report will justify us in our opinion that the resources of the line will be amply sufficient to enable the directors to propose and to carry out an arrangement of the nature of that which we have suggested in the foregoing remarks. The line is now in excellent condition; and although the traffic has shown a falling off during the last few weeks, which contrasts unfavorably with the receipts of other American lines, we feel satisfied that the falling off may be satisfactorily accounted for, and that it will be found to arise solely from temporary causes.

Holders of the bonds and other securities of this railway may rely upon it that there is a great future for this undertaking. A little patience, mutual concession, absence of litigation, and harmony among all classes of holders of its securities are alone requisite to bring about results of a most satisfactory nature.—*London Railway News*, June 13.

✎ A railroad bridge for St. Louis is now talked of, to be located five miles above the city, at Venice and Bissel's Point. No tunnelling would be necessary at that point, and rock material is abundant and close at hand. The probable cost of the bridge will be from three to three and a half millions. The principal movers in the matter are Capt. J. Brown, Charles Chauteau, E. W. Griswold, of the Ohio and Mississippi railroad, and Thos. Scott, of the Pennsylvania Central. The work on the other bridge progresses very slowly.

✎ It is estimated that £280,000,000 sterling is lost to the industry of Europe by the withdrawal of the men now in the army from productive labor.

The Early History of Railways.

From one of a series of articles recently appearing in the *Edinburgh Scotsman*, on "The Industries of Scotland," we extract, says the *American Artisan*, the following interesting information about the introduction of railways in Great Britain:—

"Though the term 'railway' is now employed almost exclusively to designate the whole system and appliances of a firm or company which conveys passengers and goods by steam power over a road that has been laid with rails, there were railways long before the locomotive was invented. In the early years of the seventeenth century wooden rails were laid down on the roads leading from some of the coal-pits at Newcastle to the quays, and for more than a hundred years no attempt was made to improve upon these, except to the extent of fixing thin plates of iron on the upper side of the wood wheel-track. The first rails made wholly of iron were cast at Colebrook Dale Iron Works in 1767. These were found to possess such a decided advantage over the wooden rails that they came into general use at the collieries; and ingenious men set about improving their shape and extending their use. The idea of laying rails along the public highways had not yet dawned on the mind of any one, though in several quarters wheel-tracks formed of stone were in existence, and had been known in Italy for centuries. In the year 1808 Parliamentary powers were obtained for the construction of the first public railway in Scotland. This was a tram-road, nine and a half miles in length, extending from Kilmarnock to Troon. The rails, of which there were two lines, were of cast iron, fixed in stone blocks. The railway cost £50,000, and was opened for traffic in 1812, the carriages being drawn by horses. A few years afterwards an attempt was made to use a locomotive on the line, but without success. The Troon railway was constructed at the expense of the Duke of Portland, for the improvement of his Ayrshire estates. Having been adapted to locomotive traffic, it is now leased and wrought by the Glasgow and South-western Company, and in proportion to its mileage, is the most remunerative line in Scotland.

"The Carron Iron Company early established a railway in connection with their extensive works, and thereby reduced their carrying expenses from £1,200 to £300 per month. Rails were also laid down at the principal collieries in Mid-Lothian, Fife, Lanark, and Ayr, a number of years before locomotives were introduced. It was proposed to form a railway of the same kind from Glasgow to Berwick in 1810, and the ground was surveyed by Telford, who estimated the cost at £2,926 per mile; but the work was never commenced. The formation of a railway from Edinburgh to Dalkeith was begun in 1826, and the line opened for traffic in 1831, the late Mr. James Jardine, of Edinburgh, being the engineer. The railway is still in existence, but has undergone a great change. It was originally constructed for the purpose of conveying coal, manure, and other heavy material, and with that view branches were sent off to the principal coal-fields of Mid-Lothian, and also to Leith and Musselburgh; but passenger traffic soon became the chief source of profit. The railway was formed of cast iron plates of what are known as the fish-bellied pattern, and up till 1845, when it was purchased by the North British Railway Com-

pany, was wrought by horses. The length of the line and branches was fourteen miles, and so numerous were the curves that eleven miles had to be traveled in order to get to Dalkeith from Edinburgh. Towards the close of its horsey days, when railways wrought by locomotives became common, this railway, with its lumbering carriages, slow-paced steeds, and noisy officials, was laughed at as an old-fashioned thing; but many persons have pleasant recollections of holiday trips made over the line. Then as now people took advantage of the fast days to spend a few hours outside the city, and it was no uncommon thing for the Dalkeith railway to bear away four or five thousand on such occasions. Musselburgh races were also a fruitful source of revenue to the line. The passenger carriages were a sort of hybrid between the old-fashioned stage-coach and the modern omnibus, and in summer the outside seats were the most popular. Mr. Robert Chambers, in one of his essays, gives an amusing sketch of this line, under the name of 'The Innocent Railway.'

"The rail was invented more than a century before the steam carriage, yet, singularly enough, the contrivers of the first locomotive did not think of using it on a railway. Jas. Watt has recorded that, in 1759, his friend Dr. Robison, who was then a student at Glasgow College, suggested that the steam engine might be employed in moving wheeled carriages on the highways. Watt does not seem to have acted on the hint until the year 1784, when he took out a patent for an adaptation of the steam engine to the propulsion of land carriages. He apparently had not much hope that anything could be achieved by such a contrivance, for he stated that 'a carriage for two persons might be moved with a cylinder of seven inches in diameter when the piston had a stroke of one foot, and made sixty strokes in a minute.' So little did he regard his invention, and so averse was he to the use of high-pressure steam, that he never built a steam engine; but his friend and assistant, Mr. William Murdoch, constructed, in 1784, a working model of a locomotive which, though only fifteen inches in length, attained a speed of six or eight miles an hour. This was the first locomotive in Britain, and it is preserved in the Patent Museum. In 1802, Messrs. Trevithick & Vivian, of Camborne, in Cornwall, patented a steam engine for common roads, and two years afterwards they constructed a locomotive for the Merthyr Tydvil railway. This was the first steam engine applied to locomotive purposes in Britain, and the leading features of it were essentially the same as those of the railway engines of the present time. For twenty years after, however, little progress was made in working out or extending the use of steam engines on the railways. A number of machines had been devised, but one after the other they were set aside. In 1814, George Stephenson made a locomotive for the Killingworth Colliery railway. It could draw thirty tons at the rate of four miles an hour, and was regarded as a great step in advance. An engine of the same kind was used on the Stockton and Darlington railway, opened in 1825, and of which Stephenson was engineer. This engine may be seen at Darlington Station, where it has been set upon a pedestal. The number of cranks and rods about the machine give it a complicated appearance, and it looks odd in contrast with the engines that have superseded it. When the Manchester and Liverpool railway was being constructed, in the years 1826-9, so little was known either as to the

capabilities of railways or the most advantageous mode of working them that the directors and engineers had some difficulty in deciding whether the line should be wrought by fixed engines or by locomotives. It was ultimately decided to use locomotives, and the directors offered a premium of £500 for the best locomotive that could be produced in accordance with the following conditions:— That the chimney should emit no smoke, that the engine should be on springs, that it should not weigh more than six tons, or four tons and a half if it had only four wheels, that it should be able to draw three times its own weight, and not cost more than £500. Four engines were entered to compete for the prize, and the trial of these, on the 15th of September, 1830, was one of the most interesting incidents in the history of railways. George Stephenson's 'Rocket' won the day. It drew three times its own weight, or 12 tons 15 cwt., at an average speed of fourteen miles an hour, and obtained a maximum velocity of twenty-nine miles an hour.

"Before the experiments on the Liverpool and Manchester railway few engineers would admit the possibility of a locomotive engine attaining a speed of over ten miles an hour. Towards the close of the last century experiments were made to discover the laws of friction and velocity, and the result of these, though bearing directly on the working of railways, was entirely overlooked by the promulgators of steam locomotion and the writers on the subjects of roads and railways. In December, 1824, when engineers and mechanicians were uniting their efforts to the production of railways and locomotives, with which a distance of ten miles an hour might be accomplished, the late Mr. Charles Maclaren wrote a series of papers in the *Scotsman*, in which he drew attention to the experiments referred to, and demonstrated in the clearest manner that the friction of a sliding or rolling body is the same at all velocities, and that a speed of twenty miles or more might be realized on railways. Mr. Maclaren's essays attracted much attention in the scientific world, and threw a new light on the labors of the railway engineers. The papers were reprinted in various forms, and obtained a wide circulation in Britain and America, and also on the Continent—having been translated into French and German. The editor of the *Mechanics' Magazine*, in commenting on the competition of locomotives on the Liverpool and Manchester railway in 1829, prefaces an extract from one of the papers by the remark that 'the *Scotsman* had the honor, four years ago, of first bringing forcibly under public notice the advantages derivable from locomotive carriages on railways.' In 1851, the *Economist*, in referring back to Mr. Maclaren's papers, said of them that 'they prepared the way for the success of railway projectors.'

"Mr. Maclaren had formed a pretty sound idea of what was necessary in the passenger carriages of railways, and it is a matter of regret that some of his suggestions were not acted upon. The passenger carriages on the American railways are, in several important respects, exactly what is here proposed:—

"In the construction of the steam coach, the object should be to unite the highest practical velocity with as many comforts and accommodations as possible. With this view, perhaps, a form analogous to that of the steamboat and trackboat would be the best. It might, for instance, consist of a gallery of 7 feet high, 8 feet wide, and 100 feet in length, formed into ten separate chambers 10 feet long each, connected with each other by

joints, working horizontally, to allow the train to bend where the road turned. A narrow covered footway, suspended on the outside over the wheels on one side, would serve as a common means of communication for the whole. On the other side might be outside seats, to be used in fine weather. The top, surrounded by a rail, might also be a sitting-place or promenade, like the deck of a track boat. Two of the ten rooms might be set apart for cooking, stores, and various accommodations; the other eight would lodge 100 passengers, whose weight, with that of their luggage, might be twelve tons. The coach itself might be twelve tons more; and that of the locomotive machine, eight tons, added together would make the whole thirty-two tons. Each of the short galleries would rest upon four wheels, and the whole would form one continuous vehicle.

"Though Mr. Maclaren's papers made considerable stir in the scientific world, they were evidently regarded with a jealous eye by the men directly connected with railways, and it was only after his predictions had been realized that the correctness of his reasoning was admitted; but then, also, men came forward and disputed the honor with him, though they had not the slightest proof to show that they were entitled to it. When Mr. Maclaren was ridiculed for his views, those men were silent; but when he came to be praised, they claimed the praise, and affected to feel honored by the ridicule. Mr. Nicholas Wood, of Killingworth, published a book on railways in the year after Mr. Maclaren's essays appeared, and though he was strongly in favor of locomotives, he said, with evident allusion to Mr. Maclaren:—'It is far from my wish to promulgate to the world that the ridiculous expectations, or rather professions, of the enthusiastic speculatist will be realized, and that we shall see engines traveling at the rate of twelve, sixteen, eighteen, twenty miles an hour. Nothing could do more harm towards their general adoption and improvement than the promulgation of such nonsense!' We do not require to point out that the 'ridiculous expectations of the enthusiastic speculatist' have been more than realized."

The people of Buffalo have revived the project of bridging the Niagara River at that place. The *Buffalo Express* says that Mr. William A. Thompson, one of the Directors of the old International Bridge Company, has entered into a conditional arrangement with Messrs Charles Kellogg & Co., of the Phoenix Iron Works, of Philadelphia, for the construction of the bridge after the plans patented by that firm. The plan of the bridge is the same as that now building across the Mississippi River at Burlington, and will be 1,750 feet long. At Burlington, however, the river is forty feet in depth clear across; the Niagara is only forty feet deep at its middle. The Mississippi bottom is of soft mud, requiring piles to be driven for a foundation to the piers, while the Niagara presents a solid rock bottom to the bridge-builder. Notwithstanding the difficulties in the former instance, the bridge is within a month of completion, although its first pile was driven last August. Max Hjotsberg, the engineer of the Chicago, Burlington and Quincy Railway, has consented to act as consulting engineer in the construction of the International Bridge. The price agreed upon for the new structure is \$715,000. The *Express* believes this amount can be raised, and that the work will soon be under way.

Western Versus Eastern Railways—Division of Fares.

The following reply was made at the Ticket Agents' Convention, in Chicago, to the demand of the Eastern Roads for a pro rata division of passenger receipts:

The representatives of passenger interests of Western roads now in session at Chicago, this 26th day of June, 1868, to take action upon the demands made upon them by the New York Central, Erie, and Pennsylvania Railroads, for a division of through passenger rates between the Eastern cities and all Western points upon the basis of pro rata per mile, respectfully represent—

That this method of division would effect a radical change in the principle which has heretofore governed the division of through rates, and it now becomes necessary that we should make a positive and final response to that demand. They notify us that from and after June 15th, inst., they will exact divisions upon the basis named, and this without other qualifications than that the through distance shall be computed by the shortest line, they to receive their pro rata per mile of the same, even to the extent of exacting more for through than for local business. The effect of this division, if adopted, would be to compel all the Western lines to contribute very largely from their receipts of through business, as heretofore established under former rules of divisions, to swell the proportions of the Eastern lines before named—a proposition that can not for a moment be entertained by us.

We concede to Eastern lines the right to establish the rates between the East and such common points as they and their connections may agree upon, and to receive the same in the apportionment of through rates.

We claim, for ourselves, the right to make the rates between such common points and the West, and to demand the same as our proportion of the through business.

The proposition of the Eastern lines named is practically to demand of us that the gross receipts of through passenger business be made a common fund, to be apportioned according to mileage by the short line, thus compelling Western lines, running through a sparsely settled country, with moderate passenger business, to carry those passengers at the same rate per mile as do the Eastern lines with their heavily laden trains. The effect, too, of the proposed method of division would be disastrous to Western roads in the matter of speculation in the sale of through tickets, which could be easily divided and sold at intermediate points on the line, and at rates greatly below the regular local tariff of our respective companies, thus compelling these tariffs to be measurably reduced, and the revenue therefrom to be greatly diminished.

For the foregoing reasons, therefore, we present the following as the ultimatum of the roads represented by the undersigned: in the division of through rates, as made at Cleveland, to take effect July 1, proximo, or such other through rates as may be hereafter established, we will allow the roads east of Chicago, Fort Wayne, Indianapolis, and Columbus (via Cincinnati), only the amount fixed by them up to these points from the East, and will exact the balance of the through rates for the lines west of said points; and we hereby agree that if any line declines to accept this settlement of the question at issue, we will withdraw from sale our tickets over, and will refuse to accept the tickets of such line.

Connecting lines interested in the question

herein referred to, will receive this circular as the final decision of the roads we represent, without further notice.

Samuel Stevenson, Cincinnati, Hamilton & Dayton Railroad.

W. L. O'Brien, Little Miami, Columbus & Xenia Railroad.

W. B. Shattuc, Atlantic & Great Western Railroad.

John S. Garland, Indianapolis & St. Louis Railroad.

W. O. Lewis, Pacific (Missouri) Railroad.

A. Newman, Chicago & Alton Railroad.

Charles E. Follett, Ohio & Mississippi Railroad.

F. B. Lord, Indianapolis, Cincinnati & Lafayette Railroad.

W. P. Johnson, Illinois Central Railroad.

W. H. King, Louisville & Nashville Railroad.

James Ferrier, Jeffersonville, Madison & Indianapolis Railroad.

T. H. Goodman, Cincinnati, Sandusky & Cleveland Railroad.

A. W. Millsbaugh, North Missouri Railroad.

J. E. Martin, Evansville & Crawfordsville Railroad.

E. A. Morris, Terre Haute & Indianapolis Railroad.

E. St. John, Chicago, Rock Island & Pacific Railroad.

B. F. Patrick, Chicago & Northwestern Railroad.

Samuel Powell, Chicago, Burlington & Quincy Railroad.

J. U. Parsons, Toledo, Wabash & Western Railroad.

A. V. H. Carpenter, Milwaukee & St. Paul Railroad.

E. B. Byington, Memphis & St. Louis Packet Company.

P. B. Groat, Hannibal & St. Joseph Railroad.

CHICAGO, ROCK ISLAND & PACIFIC R. R.—

Work on this great line is now being prosecuted both at the east and west ends of the gap between Des Moines and Council Bluffs, and twelve hundred men are at work in its construction. Forty miles of the road next beyond the former point are about finished, and will, in a week or two, be ready for trains. Under the admirable and untiring administration of President Tracy, whom all Wall street could not drive from his determination, the road will be running through to Council Bluffs in a few months time, adding largely to the wealth of Iowa, and to the trade of Chicago.

The projected line from Des Moines to Leavenworth is now taking a tangible form, and will prove a valuable feeder to the Rock Island. Chief Engineer Johnson, of the last mentioned railroad, Col. Payne of the Michigan Southern, and others interested, have just started on a trip over the proposed line, and should the vote of Des Moines, to be taken today, prove favorable, this important tributary may be regarded as certain to be built. Its construction will ensure the traffic of the Leavenworth, Lawrence & Galveston line, now running some distance south of Lawrence and destined to become one of the great roads of the West. It is built upon the same gauge and is interested in seeking an outlet to Chicago.

These various enterprises and connections add increased importance to this leading line, which has already done so much for the development of the West, and will, if carried out as contemplated, prove one of the most important spokes in this railway hub.—*West. R. R. Gazette.*

The Route to China.

A BRITISH INDIAN RAILWAY SCHEME TO COMPETE WITH THE PACIFIC RAILWAY.

[From the Alta California.]

When the steamship line between San Francisco, Yokohama, and Hongkong went into operation, the press of California and of the Union generally published information to show that the shortest route between Western Europe and China was by way of the United States; and predictions were made that the completion of the Pacific Railroad in 1870 would begin a transfer of travel and exchange between the Orient and Occident to the American route. The anticipations indulged on this score have been strengthened by subsequent events. The successful operation of the new steam line has shown what can be done even without the railroad. Already, as a New York journal remarks, news has reached London from Hongkong via San Francisco and New York in less time than by the old route between China and England. Travelers have also made the trip in less time. These facts and considerations are attracting attention in Great Britain, where projects are being discussed to open direct land routes to Europe. British ships now have to make the circuitous voyage by way of the China Sea and Indian Ocean. It is proposed to save this last voyage by building a railroad from British India to Western China, taking the port of Rangoon, near the mouth of the Irrawaddy river, as the initiative, and following the valley of the Dihong, the largest branch of the Brahmaputra, to the valley of the Yang-tse-kiang, the largest river in China. A reference to the map shows that at the base of the Siamese peninsula, including the region to be crossed, the Indian and Chinese frontiers are nearly continuous, and a few miles only separates the two great river courses mentioned.

A railroad by this route would be 800 or 900 miles long, but river transshipments would be necessary to reach the Chinese coast. Some years ago a railroad was projected from Rangoon to Kiang Hung, leaving the rivers out of the question. A survey was ordered in 1866, and prosecuted as far as the British frontier, a distance of 245 miles, when it was abandoned, on account of the expense, the sterile character of the country, and the possibility of political troubles. The latest proposition is to build a wagon road across Burmah, to be followed by a railroad if the prospects are fair, and a treaty has been negotiated to that end. The promoter of this enterprise is Colonel Fytche, who will make the surveys as soon as the civil war in China ends—rather an indefinite period.

The tapping of China from British India by either of the proposed routes, would, we are told, shorten the distance from Hongkong to London by nearly one-third, and reduce the price of freight in nearly the same proportion. The *Saturday Review* presents the following argument on the subject:

"The French are threatening us on the Upper Cambodia; but, as far as passengers and mails are concerned, we have more formidable rivals. In 1870 an Atlantic and Pacific Railway will be in existence, after which the shortest road between Europe and Japan will be by the United States. The same route will come seriously in competition with our existing routes to Hongkong and Shanghai. To turn the tables and prevent all chance of the route for our most important commerce lying through the United States, no other means are available than these roads into

Western China, and which annoy so much the official world. But with Calcutta only ten days from Shanghai, as might be the case were there only a railway from the Brahmaputra to the Yang-tse-Kiang, the United States route would be superseded. We might thus have Rangoon as the port of China, and India as the highway for passengers and mails. The prize would be a splendid one, and worthy of effort even if the object were not vital to the welfare of the empire."

There is no immediate prospect however, of the Indian railway scheme being realized; and it is even doubtful if it will be practically undertaken before the Pacific Railway is completed. Ultimately the American route may be rivalled in the way suggested, but it will, in the meantime, have established for the United States an immense business.

The Bridge Question.

[From the Cincinnati Gazette.]

The free, unobstructed navigation of the Ohio river never will be given up by Western men. That a bridge here and there is indispensable for railroads is allowed; yet these bridges must and can be so constructed, safely constructed, as to accommodate all parties, injure none. This is the common-sense view of men at a distance, yet deeply interested in all modern improvements. A span of three hundred feet is conceded by all men familiar with the river at your city an obstruction. One of five hundred feet, all agree, would be very expensive, and by most engineers and plans deemed unsafe. A compromise would be fair; and a bridge can be cheaply, safely, and speedily built, with lateral spans of two hundred feet, and a central one of four hundred, that will fulfill all requirements and allay present troubles.

Mr. L. T. Ham, now of Dayton, and formerly for many years Superintendent of the Cincinnati & Zanesville, and Cincinnati, Columbus & Cleveland road, has patented an iron bridge. He selects boiler wrought iron of best quality, one fourth inch in thickness, and can demonstrate by tables and models not only the cheapness of his bridge, but its safety and practicability. I am familiar with his bridge and claim a small space in your paper in order to show that a safe, cheap bridge of four or even five hundred feet span can be thrown over your river.

In constructing bridges, railroad men have heretofore been deterred from the use of iron, because the expense and weight has been so great as to prevent the investment. Mr. Ham will build a bridge of iron as cheaply as any road can build a safe How Truss bridge of wood, and will be pleased to demonstrate to all interested parties his figures and facts.

I have before me his estimate and bid for constructing a boiler wrought iron bridge over the Missouri at St. Charles, on the North Missouri Road. He is an old contractor, has built and rebuilt every bridge on the Zanesville Road, knows what he says, and does what he offers, and will build the bridge over the Ohio on the same terms he offered the bid over the Missouri. I give you his figures, in order to remove the impression that safe and reliable modern iron bridges are very expensive:

Length of span, 200 feet, on my plan,	
of boiler wrought iron, without	
the floor. Weight, 67,972 tons—	
say.....	68 tons.
The bridge proposed, 1,800 feet, or 9	
spans.....	9 tons.
Total.....	612 tons.

This is the weight of iron in the entire bridge of 1,800 feet, a distance greater than the contemplated bridge over your river. Before the war, a rolling mill in Covington, Ky., offered the iron rolled and prepared to set up at \$60 per ton. I do not know what iron costs now, but iron for his bridge costs no more than the same weight of any other bridge, and here are his calculations at various costs:

The iron for one span will cost as follows:
Iron at \$60 per ton, 68 tons, \$4,080; 9 spans, total \$36,720.

Iron at \$80 per ton, 68 tons, \$5,440; 9 spans total \$48,960.

Iron at \$100 per ton, 68 tons, \$6,800; 9 spans total \$61,200.

His patent contemplated iron floors, but experience has demonstrated wood as preferable owing to less jarring in passing trains.

Wood for a span of 200 feet, \$629 12; 9 spans, \$5,752.

The above comprises the cost of structure of the iron and wood floors by spans. It is safe to say that 50 per cent. will pay expenses of freight and construction. To illustrate:

1,800 feet span, iron at \$60 per ton,	
612 tons.....	\$36,720
Cost of erection, freight, &c, 50 per	
cent.....	18,360
Wood for floors, beams, &c., and 50	
per cent. for erection.....	8,628
	\$63,708

Or sixty-three thousand seven hundred and eight dollars for the entire bridge of 1,800 feet ready for use. No bridge can be built lighter, and consequently no safe bridge cheaper.

Mr. Ham can build his bridges 400 or 500 feet in the span with proportionately increased costs—as his rule is one-sixth in height for the arches and trusses of the length of span. His is a truss and arch combination. Everybody knows a truss bridge is safe—everybody knows an arch bridge is safe—so, by his combination, he has two safe principles combined, and secures a bridge never before erected, and one that challenges public attention. The boiler iron is only $\frac{1}{4}$ inch in thickness, but is corrugated. This, from experiments made by Mr. Montgomery (see New York Tribune, August 5, 1866) increases four fold the strength of the iron.

I throw out this offer to meet the objection to the vast expense of iron bridges, and the impracticability of long spans. Neither is true, unless you want to make fortunes for contractors, by every bridge they build. A good safe iron bridge with a span of 400 or even 500 feet, can be built over your river by the Company, on Mr. Ham's plan, for less than one hundred thousand dollars—yet we hear of the greatly increased cost of long spans. If you will publish this, I will, in my next, furnish Mr. Ham's tables on which he predicates the strength and cost of his bridge, so all men may see what unnecessary expense companies will create for want of correct information. MEDICUS.

THE WATER-POWER OF MAINE.—The reports of the hydrographic survey now going on in Maine, show that the State has 1955 sites of water-power, with a working energy of 300,000 horse-power equal to a force of 4,000,000 men. This water power is scattered through every section of the State. Owing to the body of water in the 1568 lakes which form large reservoirs, and cover 2441 square miles, the force of the streams flowing from them is more uniform throughout the year than elsewhere.

Nitro-glycerine in War.

[From the American Artisan.]

In your issue of June 3, I saw a short paragraph concerning the reported discoveries of Prussian military chemists of the availability of powdered nitro-glycerine for war purposes. These gentlemen are usually well in advance of the age in weapons of war and their adjuncts, but in this instance they are some years behind what has been done in this country. I perfected the whole use of precipitated nitro-leum and its equivalents some five years ago, only patenting the peculiar shell (which ensures certain discharge when projected) as the process was so simple that any person of ordinary wit could manufacture these terrible instruments of destruction, without personal risk, and I conceived, therefore, that such knowledge should only be in the hands of one or two persons at a time.

By the aid of some friends, I presented the whole invention to the consideration of the proper authorities during the recent war. If General James had lived, it would have gone wherever his shells went; for he could appreciate the benefit of success from five rounds as against a similar success from fifty rounds of the old powder-charged shell.

As to smashing armor-plated vessels with the nitro-leum shell, my experience on that point enables me to go beyond the Prussian chemists. I found that a thin plate or wooden vessel might possibly escape with a four foot hole after one 100 lb. Parrott shell, but if an attempt were made to stop the shot from entering a fourteen foot disintegration was probably sure to follow, the rivets ripped out or blown through, and the plates cracked in the weld, as well as at every joint. Should any person be disposed to esteem this statement mere empty brag, I beg leave to state that I can put my hand on some dozen or two shells of various sorts and sizes, at about two hours' notice, all ready loaded and prepared for use, which have been so for about four years past—from four-pound time or concussion fuse grenades up to fifty-pound Parrott or Schenkl shell, with percussion fuse. These last contain 22 to 30 ounces each of equivalent nitro-leum precipitate. T. P. Shaffner may be able to state the relative power between this material and powder; but I never could find that any amount of common gunpowder would do anything at all when compared bulk for bulk with precipitated nitro-leum. The heaviest shells were broken up into fragments the size of a horse-bean and scattered over a circle of half a mile in diameter. How would that work, think you, upon a cavalry charge or a boat attack?

If there be any parties who feel interested enough (merely out of curiosity) to know these facts, I will show them the thing by a grenade or a twelve-pound James gun, as may suit them best.

JOHN F. SHEARMAN.

Greenpoint, L. I., June 19, 1868.

CHICAGO, BURLINGTON & QUINCY RAILROAD. This splendid line is now doing an unusually heavy business in freights, an average of 500 tons per day, or fifty car loads, cross the river at Quincy daily for western transportation. An average of ninety car loads in all arrive there daily over that road. A large portion of this freight goes to Leavenworth and Kansas.

This Company's bridge at Burlington is finished, except the draw, which will soon be ready for trains. Work on the Quincy bridge is being rapidly pushed, and the month of September will probably witness its comple-

tion. Six hundred men are said to be engaged in its construction.

The work on the line of the Burlington & Missouri road is being carried forward, and will, when completed to Council Bluffs, be operated as one line with its parent road. The statement that the Chicago, Burlington & Quincy Railroad Company has leased the "American Air Line" from Galva to the Mississippi river is incorrect. The last named line has not a mile of track laid.—*West. R. R. Gazette.*

GOLD AND SILVER MODELS OF A LOCOMOTIVE AND STEAMSHIP.—The lovers of the beautiful can not fail to be gratified with two splendid specimens of artistic workmanship which are now on exhibition at No. 720 Chestnut street. They are models wrought of gold and silver, by J. Deau Benton, of Wilmington, Delaware, of engine No. 16 on the Philadelphia, Wilmington and Baltimore Railroad, and of the famous steamship Vanderbilt. They are accurate fac-similes of the objects they represent. The locomotive, with an accompanying tender filled with coal, or a substance strongly resembling it, is placed on a silver track, and all parts of the machinery are set in motion by the spare power evolved from a music box underneath while it is playing favorite airs. The model of the Vanderbilt attracted great admiration at the Paris Exposition, and in view of the superior manner in which all the details are perfected, the praise it there received was well deserved. Its machinery is also driven by music box motive power.—*Mining Register.*

[We have no doubt of the wonderful beauty and ingenuity of those two specimens of mechanism, but regret that such a clever artisan, in this day of practical utilitarian ideas, should devote so much thought and skill to the construction of what must of necessity be merely a "thing of beauty," when the same time, talent, and skill, devoted in the proper channel, might have produced something that would have been of essential service to mankind, and a substantial benefit to himself.]

PITTSBURG AND CONNELLSVILLE RAILROAD.—The Cumberland (Md.) *Alleghanian* speaks of the reported arrangement between the Pittsburg, Fort Wayne and Chicago, and Pennsylvania Railroad Companies, for their virtual consolidation, as cutting off the Connellsville Railroad from suitable western connections beyond Pittsburg, and hereby destroying, to a great extent, the value of the latter road to Baltimore, and possibly postponing indefinitely its completion from Connellsville to Cumberland. This is, however, an entirely erroneous view of the situation, even should the threatened consolidation take place. There are other outlets beyond Pittsburg now open, and others which may be readily opened, to the Connellsville Road, besides the Fort Wayne. The Allegheny Valley Railroad leads to the heart of the petroleum district, and affords an existing connection with Lake Erie through the Atlantic and Great Western Railroad and its Mahoning Branch to Cleveland, and through the Erie and Pittsburg Railroad to Erie; while from Cleveland the route to Chicago by the Lake Shore and Southern Michigan, and Northern Indiana Railroads is established. This line will be shortened by the construction of about sixty-six miles of easy road, so as to be about

the same length from Pittsburg to Chicago as over the Fort Wayne Road, while it will afford a much better connection with the chief Lake ports of Erie, Cleveland, Toledo, and Detroit.

No fear need, therefore, be felt as to connections beyond Pittsburg; while the business of that city itself, and that brought to it by the Ohio River, now being improved for uninterrupted navigation, and the local trade of the country between Cumberland and Pittsburg, demands and will insure the immediate completion of the Connellsville Railroad, which all the arts and efforts of the Pennsylvania Central, of which this consolidation is the latest fruit, can not prevent. The interest which the Fort Wayne Road was expected to acquire in the Connellsville by a subscription to its bonds is now being readily transferred to other parties, and the only effect of the preferences for a Philadelphia, rather than a Baltimore connection shown by the Fort Wayne will be to increase the proportion which this city will hold in the proprietorship of a line which of right should belong to her exclusively.

The most active steps are now about to be taken to place the road between Connellsville and Cumberland under contract, and within a few weeks the heavier sections may be expected to be commenced, with a view to their vigorous prosecution, and the opening of the entire line within two years.—*Baltimore American.*

PHOTOGRAPHING THE INTERIOR OF A TUNNEL. Amongst a valuable collection of scientific books, Government reports on military and engineering matters, and photographs, just presented by Mr. Walter W. Evans, president of the Spuytem Duyvil Ironworks, New York, to the Institution of Civil Engineers, is a stereograph of the interior of the high level tunnel of the Central Pacific Railroad, 7042 ft. above the sea. Every detail is clearly visible, even to the timbering of the drifted headings. The entrance to the tunnel happens to face eastwards, and the interior is sometimes illuminated at sunrise. Advantage was taken of this; and by means of a large mirror, the light was reflected equally and gradually over the whole of the interior, whilst the picture—which was exposed fifteen minutes in the camera—was being photographed.

By the act of the Iowa Legislature the McGregor and Sioux City Company, beginning at Calmar, in Winneshiek County, on the line of the old McGregor Western, now the Iowa Division of the Milwaukee and St. Paul, is required within a certain time to build and equip the road to the line of the Sioux City and St. Paul road, in O'Brien County, and thence south-westwardly to Sioux City. This line passes through the counties of Chickasaw, Floyd, Cerro Gordo, Hancock, Kossuth, Palo Alto, Clay, O'Brien, Cherokee, Plymouth, and part of Woodbury—a magnificent extent of country, with beautiful scenery, fertile soil, belts of timber finely interspersing the general prairie, and the streams affording great manufacturing advantages. The country which it will open up to settlement and civilization is peculiarly adapted to the raising of wheat. Connected with Milwaukee by the line of the Milwaukee and St. Paul Railroad, and thence with the markets of the world, it can not fail to become thickly settled and most prosperous.

BRIGHAM YOUNG'S CONTRACT ON THE UNION PACIFIC RAILROAD.—A contract has been entered into between S. B. Keed, Esq., Superintendent of the construction and Engineer of the Union Pacific Railroad line, acting in behalf of the company, and President Brigham Young, for grading the road from Echo canyon to Salt Lake City. The *Desert News*, of May 21st says: "Should it be decided to run the line through Salt Lake City the grade will be done to this point, but if the route north of the city should be selected then the grading will be done to the lake. The distance will be between sixty and ninety miles. From the mouth of Echo canyon the line will run down the Webber, through which canyon it will enter this valley." It further suggests that the undertaking will afford steady and remunerative employment for thousands of men, and a large number of teams. President Young does not contemplate hiring men himself to do the work, but will let large and small jobs to those who may wish to take them. The entire line must be graded by the 1st of November next. The distance from the present terminus of the railroad at Evans' Pass, a short distance this side the summit of the Rocky Mountains, to Echo canyon, is 421 miles, and from Echo canyon to Salt Lake City is 60 miles, making the whole distance between the present terminus and Salt Lake City 480 miles. On that portion east between Echo canyon and Green river there is already over 300 men working, and it is thought the grading on the entire distance will be completed during the present season.

TO TUNNEL CONTRACTORS

THE Commissioners of the Troy and Greenfield Railroad and Hoosac Tunnel, acting for the State of Massachusetts, invite proposals until the 12th day of August next, for completing said Tunnel, either in separate contracts for three different sections of the work, or in one contract for the whole.

The Tunnel when completed will be $4\frac{3}{4}$ miles long.

From the **East End** the mountain has been penetrated for about one mile, and for a portion of that distance the section has been enlarged to the full width of 24 and height of 20 feet. The enlargement is required to be finished and working continued westward.

The **Central Shaft** 27 by 15 feet, has been sunk 563 feet, and remains to be sunk 447 feet to grade; and the Tunnel is to be driven in each direction therefrom.

The **West Shaft Workings**, located about half a mile from the west portal embrace two auxiliary shafts used mainly for pumping and ventilation, and the headings driven in each direction make an aggregate length of about 2300 feet.

The depth of the west shaft to grade is 318 feet.

The **West End**, where arching is required, is already under contract to a point about 930 feet from portal, and from this point a draining drift is to be run eastward to meet workings from west shaft, which will obviate necessity for pumping probably by the close of the present year.

The existing buildings, and the fixed machinery provided by the State for hoisting, pumping, ventilation, and supply of compressed air to the drilling machines, now successfully operating in the rapid advance of the work, will be turned over to the contractors as they are.

A sufficient appropriation has been made by the State for the completion of the whole work.

Ample sureties will be required from parties who may be contracted with, and the Governor and Council reserve the right to reject all offers that may be made.

Plans may be seen, and specifications obtained on application to B. D. FROST, Superintending Engineer, at the Engineers' Office in North Adams, Mass., or to B. H. LATROBE, Consulting Engineer, at his office, 49 Lexington street, Baltimore, Md. Specifications and other information may be had at the State House, in Boston, from TAPPAN WENTWORTH, Commissioner, to whom proposals will be addressed.

ALVAH CROCKER,
TAPPAN WENTWORTH, } Commissioners.
S. W. BOWERMAN,

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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167 Walnut St., Cincinnati, O.

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Railroad Printers

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EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

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Late Master Car Builder C.H.&D.&D.M.

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BUILDERS OF EVERY DESCRIPTION OF

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Cambridge, Ind.

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B. E. SMITH, Pres't, C.&I.C. Railway, Columbus, O.
J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis, Aug. 2, 1866.

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

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Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

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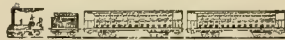
167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK WITHOUT CHANGE OF COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	8,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

CIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at the northeast corner of Broadway and Front streets, and at No. 40 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Sup't.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 1:00 p. m. On Sundays, one Express Train at 8:40 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 1:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

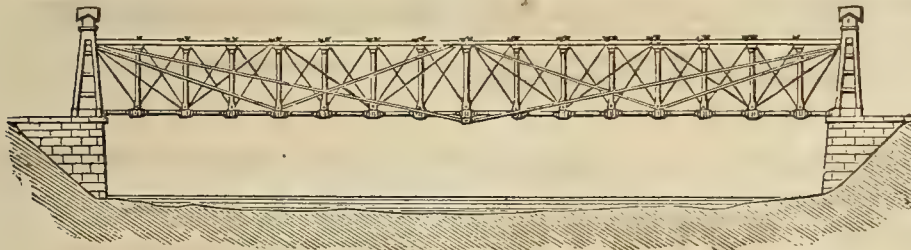
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 25 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent,
F. B. LORD, General Ticket Agent.



(Plan of Bridge)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

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AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

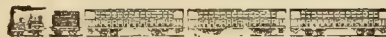
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
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The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
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Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS;

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION!

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
 Baltimore.*

L. WILSON, Master of Transportation.
 M. COLE, General Ticket Agent.
 O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Rich- mond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

JANUARY 5th, 1868.

*Cincinnati to St. Louis Without
 Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph,
 Jefferson City, and all points on the Lower Mis-
 sissippi River, and on the the Illinois
 Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine
 Street; Corner Front and Broadway; and at Depot, Foot
 of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
 J. W. CONLOGUE,
 General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI -AND- LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7:00 am	10:50 pm
Indianapolis and Cairo Express.....	7:30 am	2:30 am
Cairo and St. Louis Express.....	2:20 pm	4:08 pm
Springfield, Quincy and St. Joseph Express.....	2:20 pm	4:08 pm
Chicago Lightning Express.....	7:15 pm	11:30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8:50 pm	6:15 am

No change of cars between Cincinnati, St. Louis and
 Chicago.
 Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10:10 am	8:35 am
Connersville and Cambridge City.....	4:00 pm	9:15 am
Lawrenceburg.....	4:45 pm	2:20 pm

Through Tickets can be obtained at the Burnet House
 Office, corner of Third and Vine; River Office, corner of
 Walnut Street and River; and at Depot, corner of Plum
 and Pearl streets. The splendid Passenger Depot of the
 I. & C. Railroad is about a mile nearer the business center
 of the city than the Depot of any other railroad, and with-
 in a few squares of the Postoffice and principal hotels and
 Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CON-
 stantly on hand, painted, and ready for shipment,
 with instructions for applying them.

MOSELEY & CO.
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EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,*Locomotive and Railroad***CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast char-
 coal Pig Iron, refined with Charcoal in the old-fashioned
 Forge Fire, hammered into a Bloom from which Iron is
 hammered. The whole operation from ore to finished Iron
 is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness
 the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central
 Railroad, near the center of the State, possess superior
 facilities for forwarding the work to any part of the coun-
 try without delay.

JOHN ELLIS, President.
 WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boli-
 er Flues—from 1½ to 10 inches outside diameter, cut
 to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to
 8 inches inside diameter, with screw and socket connec-
 tions, for Steam, Gas Water, or other purposes, and fittings
 of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong
 and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in
 diameter, and branches for same. &c.,
 Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
 THOS. T. TASKER, JR., S. P. M. TASKER
 BY G. MORRIS.

Philadelphia, Wilm'gton & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M.
 (Express); 2.30 P. M.; 11.30 P. M. night.
 On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20
 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2
 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimor
 at 4.15 A. M., and 11.00 P. M. Leave al
 timore for Philadelphia at 8.25 P. M.
 Leave Philadelphia for Wilmington at 11.30 P. M. Leave
 Wilmington for Philadelphia at 8.30 P. M.

"The centre of the population, of the United States, in 1790, was in Maryland. It has since moved steadily in a direction north of west. [See Appendix, C] In 1850 it was near Pittsburg. In 1860, it was in south-eastern Ohio. If the Provinces north of us are included, the centre of population is now not far from Canton, Stark County, Ohio. If there were no ocean commerce to be taken into the calculation, Buffalo, would now be nearer the centre of industrial power of our country, than any other city, having decided commercial advantages. When the centre of the industrial power of the world shall tremble in the balance, between New York and its western rival, Buffalo will be too distant from the great river commerce and the great railway concentration of the interior plain; and the centre of commercial power of the continent will be too far west of it. The movement of this centre of population and industrial power is, undeniably, in the direction of Toledo. Before reaching Toledo there is no position, on or near its movement, so favorable to a great concentration of commerce, as to arrest its progress and make it permanent. Cleveland will be the least distant, but her advantages are, obviously, less than those of Toledo. It will be conceded that, if the cen-

tre of the industrial power of the world ever leaves New York to establish a rival city in the plain, it will come as far west as Toledo. Will it move farther; and, if it does, will it rest in Chicago? The reasons for making Toledo its first and permanent resting-place are numerous. This centre of industrial power, will, for many years, be nearer to Toledo than to Chicago. Two hundred and twenty miles, separating the two cities, will have to be passed over; and when, if ever, that distance is accomplished, Toledo will have the weight of commercial power on her side. All the time when this centre is approaching Toledo, from the east, and when, if ever, it proceeds so far west as to be nearer Chicago, the advantage will be with Toledo. A line drawn on the map, equi-distant from Chicago and Toledo, and bearing northward and southward will, extended northward, cut Lake Michigan west of its outlet, and also west of the outlet of Lake Superior. Extended southwardly, it goes through Indianapolis and Nashville to Pensacola, on the gulf. All the country east of this middle line is nearer Toledo than Chicago, and so should prefer it as the concentrating point of its commerce."

This is the most wonderful argument we have ever seen constructed! It is equal to Captain Bobadil's demonstration, that he would beat the French army with twenty men! To proceed thus: London is the great commercial centre, but the commercial centre is moving west, and as it moves west it will come to New York for a time, and then go right along the lakes, but wont stop at Buffalo on any account, and will come to Cleveland, and wont stop there; but, it will come to Toledo and will stop there, and wont go to Chicago. This brilliant piece of moonshine is founded on a total disregard of the very premises the author laid down to establish it! First, the great city is to be in the midst of the greatest food producing country, which is true; but the greatest food producing country is the Valley of the Ohio, and not the Lake Basin. Secondly, the great city must be somewhere on the great central line of population; but the centre of population is not moving towards the Lake Basin, but from it. In 1860, the centre of population was near Dayton, in the Ohio Valley, and we undertake to say will move rather south than north of that. To balance that Mr. Scott throws in Canada and the North Pole; but, we reckon, the West Indies and Mexico will more than balance that, and they are just as much use and advantage as the Canadas and Arctics are. The argument for the great city in the Lake Basin is four-fold as strong for it in the Ohio Valley. But, wherefore, is Cleveland so deliberately ignored? Does Mr. Scott know that Cleveland is advancing faster than any town in Ohio? Such is the fact, and every word said in this pamphlet, is an argument for Cleveland.

Cleveland has been increasing very rapidly and is likely to be a large manufacturing city, using the iron and copper of Lake Superior, which can be easily and cheaply transported there, and the coal of Western Pennsylvania, which is very cheap. Neither Toledo, nor

Chicago have the advantages of Cleveland for manufacturing, and they never will have. They will be inferior to the cities of the Ohio Valley for food, and inferior to Cleveland for manufacturing. This last particular we propose to consider in another article.

Southern Railroad Connection.

BLUE RIDGE RAILROAD.

Geology of the Blue Ridge—Valuable Mineral Deposits—Agricultural Resources.

The hope of some day, at least, of having a direct through connection with the Southern system of railroads, makes it more especially interesting to study the character of the country to be traversed; and although the following does not furnish anything new, yet it will serve the purpose of reminding the citizens of Cincinnati, that even the very roughest portion—the mountain region—of the country through which this great avenue of commerce between Cincinnati and Charleston is proposed to be made, contains vast deposits of the most valuable mineral ores, as well as inexhaustible supplies of valuable lumber, and is prolific in agricultural resources. The completion of this road would unquestionably open up to industry an immense, and at present inaccessible country, that would in a very great measure be tributary to the market of Cincinnati.

Is Cincinnati ever going to arouse to her interests, and with a will take hold of this work? If the same necessity existed at Chicago for the construction of *one hundred miles of railroad*, it would be done in less than twelve months; yet there is, probably, double the wealth unoccupied in Cincinnati, that there is in Chicago, and hence more interest at stake. But we did not propose this to be a lecture.

FRANKLIN, N. C., May 12, 1868.

Gen. J. W. HARRISON—*My Dear Sir:* Your esteemed favor of April has been received, in which you request me to make to you some statements in regard to "the Geology, Mineral resources, Climate, Flora and adaptation of the soil and climate of Western North Carolina to fruit culture," through which the Blue Ridge Railroad passes. Although my time is already heavily taxed, I most cheerfully comply in furnishing you a few brief statements of facts which came to my knowledge while engaged as an assistant in the North Carolina Geological survey.

To make anything like a fair report of the geology of this section would far exceed the limits of a letter, such as this is designed to be, and you must accept of a mere sectional statement of the geology as it occurs on the line of the survey of the Railroad.

In the Gap of the Blue Ridge we have Granite, and thence Northward, and underlying the Granite, we have a heavy belt of Gneiss, cut by a regular range of Serpentine; then we have, dipping under the Gneiss, very heavy beds of Alluminous Mica Slate. Then we

have the Taconic series, consisting of drab colored Talco, Micaceous Slates, Quartzite and primitive Limestone, which, at this point, consists of marble of superior quality. We then pass into Clay Slates, conglomerates and a sort of Argillaceous shales, finally reaching the old Silurian Limestones at the northern base of the Smoky Mountain chain. Immediately beyond the point where the line of survey emerges from the Smoky Mountains, there is a mass of Sandstone, (the Cheelehowee Mountain,) in which there exists strong indications of Bituminous Coal.

These respective strata are highly metamorphic, and heavily charged with metallic sulphurets and oxides. For example, in this valley we have Magnetic Iron Ore in workable quantity, Copper Pyrites, or yellow Copper, rich in its per cent of metal, which, though not explored in its frequent deposits to any great depth, promises to make valuable mines. Indeed, the real mining value of this belt is not yet understood or appreciated. At Webster, twenty miles east of this place, in the County of Jackson, there is a bed of Chromic Iron, or Chromo Ore, and the Copper Mines of Jackson county are capable of yielding a large amount of metallic Copper. On the Nanteyalee, in this County, and Valler River, in Cherokee County, immediately west, there is a remarkable grouping of valuable minerals. The valley of the Nanteyalee is a mere mountain trough, and the Valley River valley is not exceeding a mile in width. In these valleys there is immense wealth grouped into a narrow belt. We have there inexhaustible beds of Hemilitic Iron Ore for a distance of thirty miles. These ore beds are wonderful in their extent, are generally near good water power, and are accompanied with every facility for fluxing and smelting.

Immediately alongside of these Iron beds are white, clouded, gray and flesh colored Marbles, of superior quality. I compared, some years since, specimens of these marbles with the finest quality worked in the marble-yards at the Capital grounds in Columbia, and found them equal to the best. These marbles, moreover, burn into excellent Lime, and will be valuable as a flux for the Iron ores. In these strata of Marble there are veins of Argentiferous, Galena and Gold. I have seen specimens of this ore very rich in Gold. The veins, however, have not been explored to any great depth, for the want of capital and machinery.

In this same range, and grouped with these other minerals, we have large, massive beds of Agalmatolite, which is identical in the elements of its composition with the Chinese Figure Stone, a material largely worked in the European Porcelain factories, and when properly used makes an excellent fire brick. Indeed, it is wagoned to Duck Town and used in the Copper furnaces. It could be used upon the ground in the construction of Iron furnaces, which would be of great durability. Besides this, with railroad facilities, Porcelain factories might be erected upon the grounds, where the finest ware could be manufactured in any desirable quantity. There is, a few miles from this place, a fine bed of Porcelain Clay.

In this same Nanteyalee range, there are fine out-crops of Roofing Slates, Scythe Stone and Grind Stone Grits, which, with a railroad might be made valuable.

The climate of this section is salubrious and bracing. I have seldom seen the mercury in the thermometer mark higher than ninety, and seldom lower than zero. There is a remarkable elasticity and freshness in the atmosphere amongst these mountains. Add to

this the clearest crystal waters, coming out from under these bold and huge mountains, and you have a climate of the greatest excellencies.

As to the Floral, I must confine myself to what is of the greatest utility. The timbers of which our forests are composed, constitute the most valuable features. We have black, Spanish, white and post Oaks in the valleys, and Chestnut Oak upon the ridges and mountains. These timbers yield the best bark for tanning purposes. But we also have the Spruce or Hemlock as yielding a valuable bark in tanneries. We also have Chesnut in great abundance; and, as a valuable timber, we have the Hickory, which is large, and grows to perfection. This timber, with a railroad, would be valuable for the manufacture of wheel carriages. We also have the White Pine, and in Haywood, the Fir Tree, used in bucket factories. In some of our mountain coves, we have the finest of Black Locust in great abundance. Our furniture timbers are, however, of the greatest value. We have the Wild Cherry, the Black Walnut, the Maple, and Black Birch. I measured a Wild Cherry during my survey, that was thirteen feet in the girth, and about seventy feet to the first limb, with a remarkably straight trunk. I also measured a Black Walnut twelve feet in the girth, and above seventy-five feet to the first limb. I have seen very large Maples, of which I did not take the dimensions. The Birch also attains good size for lumber. With a railroad, cabinet shops might be erected on the road. I cannot, however, dwell longer upon this topic.

In regard to the adaptation of the soil and climate of this section to fruit growing, I could say much, but must necessarily confine myself to a few facts which appear as practical results of the adaptation to which you refer. I must say, however, that the generality of our uplands are either composed of or rest upon stiff, alluminous clays, and I have never seen a section in which the soil upon the mountains was so rich and fertile to the very summits. This soil, with our peculiar climate, produces the apple tree in great luxuriance. I measured, in Haywood County, a row of apple trees that averaged about five and a half feet in circumference. The apple fruit in this climate attains great perfection, and which in point of quality and flavor I have never seen excelled. Some of our best varieties are seedlings, the peculiar offspring of the soil and climate, and are not only superior in quality, but large and elegant in appearance. But some of the best varieties, being of recent origin, have not as yet been generally introduced into our orchards. Those living in our Southern cities seldom have an opportunity of judging of the quality of our fruits, as they are carried to market in road wagons, and much bruised before they reach the market. Our people wagon them mostly to Athens, Ga., and even as far as Atlanta and Augusta. The peach is not much cultivated, and the pear but seldom. Pears would, however, do well here; but next to the apple the grape would be the most economical and remunerative. The soil and climate are both singularly adapted to the culture of the grape. Here we can get any desired elevation for vineyards, and obtain localities where the humidity is neither too great nor the fruit likely to be injured by the late frosts. An experiment was made some years since, by a Frenchman, in the Cahutta Mountain, on a locality at an elevation of nine hundred feet above the level of the Ocoee River, where his fruit never had

mildew, and for a number of years was never injured but once or twice with frost. Moreover, the rocky strata of this country, and the steepness of the surface, are superior for draining the soil to any tile drains that art can construct; and by cutting into these steep acclivities, wine cellars can be constructed so as to secure uniformity of any desired temperature. This is essential in proper vinous fermentation, and the production of the best quality of wine. If your Blue Ridge Road was built, there are tens of thousands of acres now in wild forests that would soon be converted into fruitful vineyards, and settle up the country with a frugal and prosperous population.

There is one other view of this section worthy of remark. The whole line, nearly, abounds with the grandest water power I ever saw. Numerous mills and factories can be placed immediately by the track of the road, and receive and ship material without any cost for extra transportation. Again, many of these rich mountains may be converted into pastures, either for wool growing or dairy purposes. Indeed, cheese factories might be established here, and any amount of superior cheese produced for the Southern market.

You will see, my dear sir, that the brief statements which I have made go to show that the North Carolina section of your road does not, by any means, pass through mere barren mountains, without the hope of any business to swell the immense freight that must pass over it when completed.

Time and space forbid me to allude to our cereals, potato crop, hay, &c. I have said enough, however, to give a bird's eye view of this wonderful and delightful country, whose fresh invigorating climate—whose bold, dashing mountain streams, crowded with trout—pure crystal waters, and untainted atmosphere, will one day attract a thrifty and intelligent population.

Yours, truly,
C. D. SMITH.

Union Pacific vs. Northern Pacific.

The *Salt Lake Telegraph* says:—"The Union Pacific Company intend to push the road to Montana, having it at the Stinking Water by January, 1870, thus forestalling the Northern Pacific Road.

"The proposed route of this branch to Montana, according to Gen. Dodge, is, leaving the Oregon line in Snake River Valley or at Soda Springs, up the Snake Valley, passing the main Rocky Mountain range at the head of one of the tributaries of the Jefferson. The route is very favorable. The line could be run all the year unobstructed by snow. The road could be built to the Columbia in eighteen months."

This is letting the "cat out of the bag," and but fairly illustrates human nature, which never can get enough. The managers of the Union Pacific Railroad have, no doubt, got a "good thing," and it is, perhaps, "legitimate" to do their best to add to it; but the country will not permit the Union Pacific to be the *only* route between the Eastern and Western States. Besides there is a vast country between the west end of Lake Superior and Puget's Sound, or the mouth of the Columbia, that would not be reached by the

proposed branch,—is this to lay dormant waiting for the Union Pacific to "forestall" its natural outlet?

However, without joking, we suppose that the experience of the Union Pacific, the past winter, demonstrates the necessity for the construction of a "winter" in addition to their present "summer route," and hence they propose to take the more Northern route on account of its milder climate. Queer, ain't it?

Northern Pacific Railroad.

The Montana papers are discussing a change of the route of the Northern road. As at present proposed, its course is as follows:

The line crosses, after leaving the Mississippi, the Red river of the North, connecting with the navigation upon it; thence it continues to the Dakota or James river, which it intersects in latitude $46\frac{1}{2}$ degrees nearly; thence the line continues to the Missouri and Yellowstone rivers, crossing the former in the vicinity of the site of old Fort Clark, and the latter in the latitude of $47\frac{1}{2}$ degrees north nearly, both of which rivers are navigable for steamers for long distances above and below the points of crossing; thence along and north of and not far from the Yellowstone, keeping to the south of the divide which separates its tributaries from those of the Missouri, to near the mouth of the Big Horn river, and from thence to near the southern extremity of the Judith mountains, bearing thence north-westerly between the latter and the Belt or Girdle mountains, passing near to the Great Falls of the Missouri, the limit of steam navigation upon the latter for the larger class of river vessels; crossing the Missouri above the Falls, thence to Cadot's pass, in the main range of the Rocky mountains, following the valley of the Cokalabiskit or Big Blackfoot river, diverging therefrom by Lansdale's trail, represented as practicable, through an opening to the valley of the Jocko river; thence down the Clarke's river to the Pend d'Oreille lake; thence south-westerly to the Spokane river and along the south-easterly side of the great Columbia plain to the crossing of the Columbia river, not far from the mouth of the Yakima river; thence along the valley of the latter river to its source at the True Snoqualmie pass of the Cascade range of highlands, as above described, north-west of Lake Kitchelus, and from thence to Seattle, on the shore of Puget's Sound. The branch line to Portland, in Oregon, leaves the main line near the crossing of the Columbia river, on the west side, and passes down the valley of that river, as represented, to its terminus at Portland, on the Willamette river, a short distance from the Columbia river.

The new line leaves the above route at the mouth of the Big Horn river, bearing westerly in the direction of Bozeman, instead of north-westerly to the Judith mountains. It passes the mountains on the headwaters of Salmon river, and runs down the Salmon valley to Snake river. A branch to California is projected along the base of the Blue range, via Klamath lakes and the headwaters of the Sacramento, which is said to turn the Sierras completely, and reach San Francisco through a country susceptible of cultivation all the way.—*Missouri Democrat*.

The Union Pacific Railroad and the Credit Mobilier of America.

The New York *Herald*, under date of Saturday, says:

An important suit was commenced to-day in the Supreme Court of this District, against the Union Pacific Railroad Company and the Credit Mobilier of America, by James Fisk, Jr., a stockholder, and also a subscriber for twenty thousand shares of the Company's stock, which he failed to receive, although he tendered the money for the same. The plaintiff alleges that the various grants, rights, and privileges conferred upon the Company by Congress are of far greater money value than the cost of constructing and equipping the railway, and that instead of undertaking by their own officers the task of constructing the line, or making a reasonable contract for the work, the directors or a controlling number of them, in order to secure to themselves personally great profits and advantages, entered into an arrangement by which they established the Credit Mobilier, and placed in its hands and under its control the construction of the entire railway and telegraph line. Thus all, or the greater portion, of the profits and advantages of building the road, which should have been retained by the Company, were handed over to this Credit Mobilier—a close corporation created by the State of Pennsylvania—and the original stockholders of the Union Pacific Company reaped none of the benefits. The plaintiff further says, he believes, that by some contract or arrangement between the two organizations the bonds issued to the Union Pacific Company by the Government, the grants of land made to the Company by the Government, and the bonds issued by the Company under acts of Congress, have been transferred to the Credit Mobilier, or that the control and benefit thereof have been vested in that corporation, in which the Directors of the Union Pacific Company are large stockholders, as well as Directors of the same. The dividends and profits of the Credit Mobilier, it is well known, are very large, amounting, as the plaintiff is informed, to fifty or sixty per cent on the whole capital stock for two months, the whole of which, it is contended, ought to go to the stockholders of the Union Pacific Company. It is alleged that, in order the better to carry out the programme for building the road through the Credit Mobilier, a contract was made with a brother of one of the directors for constructing it, but that this arrangement was merely a cover for the real arrangement before mentioned. This contract was afterward assigned to some of the present directors and is now held by them. The plaintiff, therefore, asks that the establishment and management of the Credit Mobilier by directors of the Union Pacific Company be declared a fraud upon the Union Pacific Company and its stockholders, and that the directors in question be held to have acted as trustees for the Union Pacific Company and made accountable for all their transactions; also that the Union Pacific Company be restrained by injunction from paying or delivering to the Credit Mobilier any United States bonds or land grants from the Government or bonds issued by the Union Pacific Company, and that the Credit Mobilier be similarly restrained from receiving them. Further, that all contracts and arrangements made between the Union Pacific Company and the Credit Mobilier be declared fraudulent and set aside, and that the said Credit Mobilier return to the Union Pacific Company all bonds, securities,

and other property, or the proceeds thereof, at any time received from the Union Pacific Company, and that it be restrained from paying any dividend or making any distribution of profits until the liabilities of its directors and stockholders to the Union Pacific Company are determined. In accordance with this complaint Judge Barnard granted an order this morning restraining the defendants, as aforesaid, and they are to show cause why the injunction should not issue on the 21st inst. The suit involves an important principle, and a very strong case is here made out against the Credit Mobilier. Moreover, it is contrary to the spirit of the acts of Congress, providing for the construction of the railway to the Pacific that a corporation should thus be created within a corporation, and virtually the Credit Mobilier is the Union Pacific Railway Company. Hence, while the stockholders in the latter are receiving nothing, those in the former are the recipients of enormous dividends, the profits of the work being much greater than is generally supposed. Indeed, it is believed that the whole cost of constructing the railway has not exceeded the amount of the bonds issued by the Government to the Company, in addition to which it has been permitted to issue an equal amount of its own first mortgage bonds. The road, moreover, is stated to be badly built, and the whole matter forms a subject for Congressional inquiry, and a committee should be appointed for this purpose without delay.

The Toledo and Greenville Railroad.

DEFIANCE, June 29, 1868.

EDITOR BLADE: You did me the kindness to publish an article in your issue of the 26th instant, upon the subject of constructing a railroad by way of the T. & W. R. W. to Greenville, Ohio, and Union City and Richmond, Indiana; and I hope that you will now permit me to call the attention of your readers to the fact that there is now no railroad in Ohio, except the D. & M., which could come in competition with a railroad constructed over the route which I have proposed; and that the average distance between the D. & M. Road, and the railroad about to be constructed from Michigan through Fort Wayne and Richmond, in Indiana, is more than fifty miles.

The route proposed from Emerald or Cecil, on the T. W. & W. R. W., would run about midway between these railroads, and the road, if constructed over it, would open up to your enterprising business men a large amount of territory between the Wabash road and Greenville, which now finds channels of outlet to points other than Toledo.

This road, in running south, would intersect the following roads at the following distances from Emerald:

The P., Ft. W. & C. R. R. at Van Wert, 24 1-2 miles; the B. & I. at Dallas, 70 miles; the C., P. & I. R., 73 miles; D. and Union at Greenville, 77 1-2 miles; and as Dallas is only nine miles from Union City, it would bring Toledo within one hundred and forty miles of Union City; and it would also give you easy access to Richmond.

The distance to Indianapolis would be precisely the same from Toledo by this route that it now is by the way of Peru.

Thus—Toledo to Emerald, 61 miles; Emerald to Dallas, 70 miles; Dallas to Indianapolis, 93 miles. Total, 224 miles. From Toledo to Peru, 150 miles; from Peru to Indianapolis, 74 miles. Total, 224.

This road would, if constructed, bring you the trade and produce of Van Wert, Mercer, Shanesville, Celina, and intermediate points, which is now carried elsewhere.

By this route Van Wert would be brought within eighty-five miles of Toledo, which by the Lima route it is now ninety-eight miles from it.

I have trespassed more upon your time and patience than I originally intended to have done; and, with the remark, that there is now only twenty-four and one half miles of the road to be graded upon this route, and that I believe if your citizens and the T. W. & W. R. W. should evince a disposition to take hold of the matter, the citizens living along its line would finish the grading within three months from this time; and that I do not intend to trouble you again upon the subject. I remain, &c., A. S. L.

ANNUAL MEETING OF THE STOCKHOLDERS OF THE MORRIS AND ESSEX RAILROAD—A meeting of the stockholders of the Morris and Essex Railroad was held in Hoboken on the 25th ult. President Randolph was in the chair. Daniel Lord, Esq., was elected President for the ensuing year.

On motion of Mr. Thippan, the following named gentlemen were elected Vice-Presidents: the Hon. George T. Cobb, Morris; Peter Smith, Sussex; John J. Phillips, New York; and Gen. J. Norris, Halstead, N. J. Jacob Vanatta and Amzi Dodd were elected Secretaries, and John C. Bailly, Joseph N. Tuttle and Albert R. Riggs, Inspectors. The report of the Directors was then read. The gross earnings of the road for 1867 were \$1,420,015 04; expenses and disbursements, \$1,155,467.65; net profits, \$264,547.39. The first five months of 1868 show a net profit in excess of the same period of 1867 of \$167,543.62. The construction account for the year amounts to \$1,296,457, of which \$61,642 were expended during the six months ending December, 1867. The total assets of the company are represented as follows: Construction, \$7,699,711.26; locomotives, machinery and cars, \$2,656,589.32; real estate, buildings, &c., \$469,544.39; capital stock, Newark and Bloomfield Railroad, \$35,000; cash, and bills and accounts receivable, \$252,044.86; premium and discount on bonds, \$412,397.51; total \$11,545,287.64. In reference to the passenger traffic, the earnings for the last six months of 1867, as compared with those of 1866, were \$54,000 in excess, or 21 per cent. The report next alluded to the great benefits which would result by new connecting railroads, which would bring to the main line a vast amount of coal and iron traffic—a traffic already large—no less than 230,000 tons of coal having been carried by the company in 1867, at an average rate of 1 1/2 cents per ton per mile. It alludes to the great advantages of Hoboken as a shipping place for coal and iron ore. The increase in passengers and freight each month is said to be highly favorable; and with the completion of the double track, now under contract, from Morristown to the Delaware river, the road will show a gain of 50 per cent. on the business of 1868 and 1869. The company own about 70 acres of real estate at Hoboken, and water front of 1,000 feet, worth, altogether, \$3,000,000 to \$4,000,000. The following Directors were appointed: Theo. F. Randolph, Beach Vanderpool, Robt. Hamilton, Edwin A. Stevens, Asa Packer, Edward H. Wright, Francis S. Lathrop, Aaron Robertson, J. Cowper Lord, C. A. Lightpipe, George Opdyke, Wm. W. Shippen and George Bliss.

What Brigham Young says of the Pacific Railroad.

The Mormon prophet puts a good face upon the invasion of Utah by the Pacific Railroad. In a speech delivered in the temple at Salt Lake City recently, he said:

"If I were the whole community and were to give my voice, and if I had the capital to employ the men to build it, and had it all my own way, I would say we will have the railroad from the Atlantic to the Pacific oceans. They have got this road already started. There is one from the East going West, and one from the West going East, and they say they are going to meet.

"If I could direct the route they should take, I should have it down through Echo and Weber Canons, and from there through the lower part of Salt Lake City, and then pass the south side of the lake to the Humboldt. Whether it is the province of this community to dictate in this affair will be better understood when the track is laid. We are willing to do our share of the work, provided we get well paid for it. I suppose the committee will give their report and endeavor to shape their resolutions as near as possible with the wishes of this community. Whether I have hit the mark or not I do not know. I know what my wishes are, and I understand what would be for our benefit in building this road.

"We have undertaken to do a certain section as far as the grading is concerned. Whether we shall have the privilege of hearing the whistle and the snorting of the iron horse with every train of cars that passes from the west to the east, I do not know. Still I would like to hear the whistle and the puffing of the iron horse every evening and through the night, in the morning and through the day. If the company which first arrive should deem it to their advantage to leave us out in the cold, we will not be so far off but we can have a branch line for the advantage of this city.

"I believe that some have the idea that wherever the line goes there will be large cities built on its track, and that at the junction of the two roads, there must be a great deal of money expended for material and labor in erecting large machine shops. Whether they meet in this city, at the mouth of Weber, at the Humboldt Wells on the desert south of the lake, or in the mountains north of the lake, has yet to be told. I am certain of one thing, and that is that the eastern company is determined to meet the western company as far west as possible, and that the western company is determined to meet the eastern company as far east as possible; but whether the junction will be in our city or in the vicinity adjacent, I do not know.

"I know this, that wherever cities are built it requires capital to build them. What kind of capital? Gold, silver, lawns, calicoes, broadcloths, fine bonnets and fine hats? Not a bit of it; but the capital and the only capital required to build cities is bone and sinew, and wherever the laboring men set their feet in these mountains and say, 'We will have a city,' there a city will grow. The laboring men are the ones who build the cities. Who owns them when built? Why, those to whom God pleases to give them."

CONTRACTORS who are seeking work will, by a reference to our advertising columns, see that the Commissioners of the State of Massachusetts are inviting bids for the construction of the great Hoosac Tunnel. The State has appropriated five millions of dollars for the work.

The Bridge Question.

[From the Cincinnati Gazette.]

In my last article I promised you the tables on which Mr. J. T. Ham predicated the strength and cost of his boiler wrought iron bridge, and I comply. I know it will startle your community when told a safe, permanent, graceful and beautiful iron bridge can be built over the Ohio, at Cincinnati, with a central span of four hundred feet, for less than one hundred thousand dollars. I know of the plan proposed for your present bridge, with the two hundred feet spans, be either Fink's or Bollman's or Post's, it will cost nearly a million, and I challenge the architects or the proprietors (as they have heretofore been challenged) to show an error in the tables, or to demur to any statement of Mr. Ham. The only fault of Mr. Ham's bridge was stated by Gen. Sherman, who wrote him, "there is not enough of expense in it to make it popular with outsiders. If you would have two or three hundred thousand dollars on each bridge to throw away on friends, you would soon introduce your bridge. As it is, it is too cheap to be popular."

Now the first question, and most important one is, is this bridge safe? If not, there is an end of the question. If safe, and less than one-fourth of weight, and consequently one-fourth of cost, why not use it, and have done with the constant cry of cost of iron bridges? Every engineer admits Haswell's tables. They are old, and were made at West Point, but recent investigations confirm them fully. In his tables, page 168, he says: 60,000 pounds is the actual trussle strength of one square inch of iron. In a note at the bottom of the page he says 25 per cent, or 15,000 pounds is conceded as safe working strength as practical value. In the crushing force, such as is exhibited in arches, the force necessary to crush one square inch of iron is 116,000 pounds. Taking 25 per cent. of this would be 29,000 pounds, as the conceded safe working strength of iron. In the table below Mr. Ham only takes 12,000 pounds and shows the strongest iron bridge in the world.

The reader will remember he makes his bridge of boiler wrought iron $\frac{1}{4}$ inch in thickness, and corrugates it—i. e.: Say a piece for a post 18 in wide is corrugated or folded. Say six inches on each side, the back six inches, and an open space six inches. This is his patent, and if your readers will try an experiment with a card thus corrugated, they will find it will bear several pounds, when in natural shape the tip of the finger will bend it.

TABLE FOR 200 FEET SPAN.

	Tons.
Two bottom chords each, 1 inch plus 24 inches—48 inches x 60,000 pounds, 2,880,000 pounds—1,440 tons.	
One-fifth or 12,000 pounds s to one square inch.....	288
Two top chords $\frac{1}{4}$ inch—18 inches—9 inches.	
Eight arches $\frac{1}{4}$ inches—18—36 inches the two—45 inches—60,000 pounds—2,700,000 pounds 1,350 tons.	
One-fifth or 12,000 pounds as practical value.....	270
For one span of 200 feet, full practical value.....	558

And engineer or mathematician can easily run over these calculations and refer to tables by Haswell and others. Now you have a conceded practical strength of 558 tons in your

bridge. Now how will you test its strength? Let me help you by a recapitulation:

Weight of Iron in bridge.....	68 tons.
Weight of floor stringers, &c.....	23 $\frac{1}{2}$ "
Put on 5 Locomotives 40 tons each.....	200 "
	291 $\frac{1}{2}$

Deduct this from 558 tons, the strength of the span and we have 296 $\frac{1}{2}$ tons surplus. We have loaded this span with the heaviest of all things that can cross a bridge—five locomotives and tenders all ready for use. I will put on all that ever will be required, say:

Locomotive.....	40 tons.
6 cars 14,000 lbs each.....	42 "
Loaded 10 tons each.....	60 "
	142 tons.

Deduct this from 558 tons, the actual strength of the bridge, leaves a surplus of 416 tons for all contingencies.

It is impossible to put on a bridge in any other shape, the same amount of weight as in locomotives, and we deem it a fair illustration of its power and a conclusive test of its safety. As we said in the first article. Mr. Ham will build a 200 feet span of boiler wrought iron bridge and the iron costing \$60 per ton, for \$4,080; or the same if iron costs \$80 per ton., for \$5,440; or if it cost \$100 per ton., at \$6,800 per span. Before the war he was offered iron rolled and prepared to set up at \$60 per ton. If a company want an iron bridge they must pay for the weight, and his iron costs no more than any other form of iron; is stronger, because better; is lighter because hollow, and thus as we have proved its tensile and crushing resistance, is safer than any other form of iron bridge. Now, why do you want so great a surplus of strength? may be asked and very properly so, because we have placed these five locomotives on the bridge as it were gently—let them come as they do.

"The herald of a peopled world,
News of all Nations lumbering on their backs."

And every joint and fiber of the bridge will be struck, and if it quiver it will eventually fall. A bridge on piers must neither "quiver nor quaver," or every motion of one train is increased by the succeeding one, and down it goes as did the one at Zanesville (twice) and will again.

I am aware, Mr. Editor, of popular and even railroad directors' fear of cost of iron bridges. I add an additional table to show you in pounds and tons every particle of iron used in a 200 feet span by Mr. Ham:

Weight of bottom chords.....	32,664 lbs.
Weight of chords and arches.....	30,212 "
Weight of 102 posts and traces, $\frac{1}{4}$ by 18 inches and 33 feet long....	50,846 "
Weight of 66 lateral braces.....	12,628 "
Weight of 48 stirrups 9 feet long....	87,000 "
Weight of 4,000 bolts.....	1,333 "
Total.....	135,948 lbs.

Or 68 tons—a fraction less. Mr. Ham estimates 50 per cent. for freight and erection, and you have a safe, light and cheap iron bridge, indestructible.

I am ready to demonstrate by models and facts every position taken here. I can give other tables that will remove from any railroad company all excuse for stopping a navigable river. From the cost of erection of iron bridges, I affirm that a span of 400 or 500 feet can be thrown over your river in increased ratio of expense, taking the 200 feet as the basis.

There is no truth, then, in the assumption that an increased span is so very expensive or unsafe, and if any man desires more information on this subject (and who is not interested), I refer him to S. T. Ham, Esq., Dayton, Ohio, or to your humble servant at Lancaster.

MEDICUS.

The English Channel Tunnel—Feasibility of a Submarine Tunnel—Cost of the Work.

[Correspondence of the Washington Chronicle.]

It may not be uninteresting to your readers to have a few particulars about the projects for connecting England with the Continent by some method or other more convenient than that of navigation. I will omit the systems of employing balloons, but direct my attention at once to the plan of building a railroad bridge, or series of bridges, which appears thus far to be the most popular, for having the advantage of open air and daylight, as compared with submarine tunnels. There is a prejudice against tunnels, even on ordinary railways, and it would probably be some time before travelers would look with complacency on the line between Dover and Calais. But the tunnel is, in all probability, really practicable, whereas no such assurance exists respecting the bridge. The number of artificial islands or foundations, at certain distances in the channel between coast and coast, to be connected by means of bridges, offer a rather doubtful guarantee as to the durability of the work. Mr. Boutet, a French engineer, has lately come to England with a view of examining the feasibility of such an enterprise. Another plan has been formed of building a railway, contained in an iron tube, resting on the bed of the sea: but neither of these plans receives as much attention as a submarine tunnel. Investigations about the depth of the channel have proved that no obstacle is presented on that score, the channel being a shallow sea. Evidence has likewise been obtained of the fact that the soil over which the sea flows is white chalk, gray chalk and green sand further below. This fact was ascertained by borings on the English and French coasts. The two points on each side of the channel being not more than twenty miles from each other, it is but reasonable to suppose that the same material will form the submarine soil from coast to coast, and tunneling through chalk is a work of no difficulty whatever, nor would there be any trouble in so depressing the tunnel as to carry it through the gray chalk, which is less permeable to water than the white. The great obstacle seems to be the possibility of a fissure being found at some one point so considerable as to admit water into the workings in quantity too great to be overcome. As for the probable expenses of such an enterprise, they are not as enormous as might appear at first sight. Calculations have been made which show that £10,000,000 (\$50,000,000 in gold) would defray all the expenses, and it is thought the work might be executed in ten years' time.

It is presumed that land shafts might be sunk on either coast, and a preliminary drift-way driven under the sea, at a cost of about one-fifth of the entire estimate; and this experiment it is said, would solve the only question which remains obscure.

The shipments of bar and sheet steel made in Pittsburg, during the last three years, were 31,053,507 pounds.

Boiler Explosions—Cause and Cure.

From the New York Tribune.

SIR: I have an office at No. 175 Broadway, in this city, where I am prepared, through the agency of Mr. H. B. Hayes, to furnish to any one the means of *absolutely* preventing leaks, ruptures, and explosions of steam boilers. I also take great pains to explain to all comers why boilers leak or burst and how most of the fires which occur in steamships and buildings containing steam boilers are inaugurated. My steam boiler attachment has been tested in a manner which shows beyond question that it does accomplish the result of preventing the two classes of disasters, viz: explosions and fires. I have not failed, so far as I know, to convince any person, however skeptical he may have been, of the truth of these statements, with whom I have the privilege of communicating. I know, and can show clearly, why and how the boiler on the St. John, the boiler which exploded on Twenty-eighth street, the fire engine last week, and the tug boiler exploded, and how these terrible accidents might have been prevented. I know that there are about 5,000 boilers on this island as liable to explosion as the one, which by its bursting, caused such terrible loss of life on Twenty-eighth street, and that each of the large number of boilers on passenger steamers with their heavy freight, sailing out of and into this port every day, are as liable to an explosion to-day as was the St. John's boiler on the day it burst; even on the St. John the same kind of an accident may occur to-day as it did happen when so many were killed. There is no difference in the boat, boilers, engine, or management now, from what there was then. If any one can show me there is, I will have no more to say. Every fire-engine in the Department is to-day as liable, so far as human foresight can determine, to explode its boiler in the streets, if a fire occurs, as was the one which did burst last week. Every steam-tug in our harbor is quite as liable to explode a boiler to-day as was the one which exploded last week. To be sure, people say this tug boiler was out of repair, but if we inquire it will be found that it was not the known weak part which gave way. The conditions which bring about an explosion are the same as those which cause the chimneys on kerosene lamps to burst. Who can tell how long one will last? Who will say he knows of a particular weakness in the glass which will cause it to burst, before he lights the lamp and heats it unequally? I claim that all leaks, ruptures, and explosions of steam boilers come from unequal heating, and the consequent unequal expansion creating a tension not exerted on the boiler at the time it is subjected to the test by water pressure. The remedy is to cause the water to be stirred up to equalize the temperature, as we would do with our bath if we found cold water at the bottom and hot at the top. Who does not know that we may have a temperature, by this means, in the bath-tub so equalized that we can not tell, by the aid of a thermometer, what point is hottest or coldest? So I propose to do with boilers.

Yours, truly,

NORMAN WIARD.

A Mr. Kerr, of Edinburgh, has invented a reflector for a locomotive, by the means of which the engineer is able to see the rear of his train, the conductor, and all who are getting on or off, without moving from his seat. It can be arranged for any length of train by simply changing the angle of reflection.

Puddling by Machinery.

The improvements in the manufacture of iron and steel invented by Mr. Thomas Roper, of Ulverstone, consists of a combination of the Nasmyth and Bessemer processes. He first forces high pressure steam through the metal to remove the sulphur as sulphuretted hydrogen, and then blows through atmospheric air to decarbonize the iron and convert into malleable iron and steel. The melted cast iron is run from the cupola into a puddling furnace, in which it is treated by steam and atmospheric air, in which it is puddled. The puddling furnace he employs has a bed of a circular figure, on which circular bed the melted iron is operated upon. The fire-place and other parts of the furnace are of a figure to suit the circular bed of the furnace. Through the roof of the furnace he passes a hollow vertical shaft, having at its lower end two or more horizontal arms; these arms have small openings or jets made in them. This hollow vertical shaft is supported in suitable bearings, and is provided with the requisite gearing necessary to communicate to it a rotary motion. The boxes, bearings, and other parts of the machinery external to the furnace are made hollow, and air is made to circulate through the said parts to keep them cool. In using this puddling furnace and apparatus, he runs the melted cast iron from the cupola into the bed of the puddling furnace, and lowers the vertical hollow shaft into the melted iron; a rotary motion is given to the said shaft, and high-pressure steam is passed down it. The said steam passing along the horizontal arms, escapes by the small holes or jets in the said arms, and by the motion of the said shaft and arms is carried to every part of the melted iron. The desulphurization of the iron is thereby rapidly effected. After the iron has been sufficiently treated by means of steam, he turns off the steam, and immediately passes air or other gas capable of yielding oxygen at a high temperature down the vertical shaft at a pressure suitable to force it through the jets in the horizontal arms into the melted iron, the rotary motion of the vertical shaft being kept up during the passage through it of the air or other gas. The decarbonization of the iron is thereby rapidly effected, and when it assumes the pasty consistence which indicates that the decarbonizing process is nearly complete, he raises the vertical shaft, and thereby lifts the horizontal arms out of the furnace, and the puddling of the iron is completed by puddling in the ordinary way.—*London Mining Journal*.

WORK ON THE ATLANTIC AND PACIFIC RAILROAD.—Ground was broken on the Atlantic and Pacific Railroad at Springfield, Mo., Saturday, the 4th, with imposing ceremonies. A large number of people were present, many coming from Kansas and Arkansas. Miss Mary C. Fisk, daughter of the Vice-President, removed the first shovelfull of earth, after which speeches appropriate to the occasion were made by Gov. Fletcher, Andrew Peirce, Jr., of Boston, Hon. John S. Phelps and Henry T. Blow, Gen. Fisk, Col. Baker, and others. A large force has been placed at work on the Atlantic and Pacific Road west of Springfield, also on the South Pacific Road west of Little Piney. The enterprise will be pushed rapidly forward with a view of connecting St. Louis and San Francisco by the 35th parallel route to Albuquerque and beyond.

St. Louis, July 8.

STEEP GRADES ON RAILWAYS.—MESSRS. EDITORS:—In a recent number of the *American Artisan* you published an article on steep grades of railways in this country. At this terminus of the Madison and Indianapolis Railway there is, in one mile, a rise of 400 feet—that being the height of the hills. The road is straight, and passes through two deep cuts, the lower being more than 100 feet, and over an embankment about 70 feet high, the entire road being cuts and "fills." At the foot of the plane the road makes a short curve at right angles to its former course. Upon the plane, between the rails, there is laid a cog-rack, the heavy plane engines being provided with a pinion meshing therewith; and this pinion being kept down by the elastic pressure of steam and rotated by suitable driving-gear. When coming in, the trains are uncoupled and allowed to run down by themselves, being governed only by the brakes.

This is the oldest road in the State, and has been running constantly for thirty years; yet, during all that time, very few accidents have happened upon it; and those few have been unimportant, as compared with other disasters.

HENRY CONNETT, JR.

Madison, Ind., May 2, 1868.

FOREIGN TRADE OF FRANCE.—The Board of Trade has issued another part of its new series of foreign trade accounts. The principal imports and exports of France in the first quarter of 1868 are given. The list of imports begins with the item of second-hand apparel, of which France imported 41,566 kilos., of the value of 498,792f., two-fifths of it from the United Kingdom. The world, however, takes a good deal of wearing apparel from France. In the three months, under-clothing of the value of 11,045,052 francs was exported, (much of which went to South America); new dresses, &c., 8,048,603f.; millinery, 5,298,864f.; haberdashery, chiefly of pure silk, 4,962,490f.; artificial flowers, 2,137,432f.; while the general item of textile fabrics exported in the quarter exceeded 174,000,000f.; the import of textile manufactures being below 24,000,000f.; mercury or small wares exported amounted to 38,482,539f. The quarter's import of raw wool amounted in value to 46,165,155f., and the export to 5,092,882f. of raw, 5,556,303f. carded, and 2,353,180f. waste. The import of cotton was valued at 134,202,309f., and the export 22,879,804f. The import of wheat reached 75,766,530f.; of coffee, 23,088,375f.; of hemp and tow, (chiefly from Belgium,) 22,858,104f.; of coals, 29,120,140f.; of copper ore, 2,354,849f.; and of copper, first fusion, in blocks, bars, or sheets, 10,044,001f.; of lead ore, 1,561,190f.; and of pig, bars or plates, 3,043,942f.; large hides, 9,722,830f., and small skins, 13,221,780f.; machines and machinery of all kinds, 2,852,675f. The steam engines, fixed and marine, imported, were of the value of 65,200f., the import from Belgium amounting to 61,000f., and from the United Kingdom to 3,100f.; but agricultural machines, and machines for spinning, weaving, &c., were chiefly from the United Kingdom. The imports of cotton, linen and woolen manufactures were also chiefly from the United Kingdom, except in the item of unbleached lines, plain, which Belgium supplied to the amount of 2,240,530f., and the United Kingdom only 241,703f. The exports in the first quarter of 1868 of French produce and imported articles, classed as such, comprised—wine, value 47,158,890f., the United King-

dom taking to the extent of 9,555,000f.; brandy, (pure alcohol) 16,648,010f.—to the United Kingdom, 11,625,500f. The export of salt butter reached 10,646,503f.; eggs, 5,797,762f.; table fruits, 2,528,729f.; oxen, 1,447,794f.—for all these four articles the United Kingdom was the chief customer. Swine valued at above 1,000,000f. were sent to Switzerland. The export of leather wares amounted to 10,981,792f.; hides, 3,399,845f.; curried, 9,600,484f.; gold jewelry, without precious stones, 2,059,343f.; French books, 2,489,090f.; clocks, 1,014,453f. The export of cotton fabrics exceeded 10,000,000f., linen cloths below 5,000,000f., silks above 98,000,000f., woollens above 60,000,000f. Raw sugar, beet-root, of the value of 5,709,809f. was exported in the three months, and refined sugar of the value of 13,241,969f., almost all the former going to the United Kingdom.

A RAILROAD TO CONNECT FRANCE AND ENGLAND.—The *Courrier du Pas-de-Calais* publishes the following account of an audience granted by the Emperor to M. Boutet, engineer, the promoter of a plan for making a railway bridge across the Channel: The reception was of the kindest description. The Emperor is conversant with the subject in all its points of view. "Draw me up," he said, "a detailed memorandum of the means of construction, with all the plans, an estimate of the cost, the time required for the execution, and a calculation of the profits of the undertaking. I will examine all these myself, and we will support you. This project," added the Emperor, "is far more practicable than all the tunnels and other expedients proposed, in none of which have I any confidence."

A large plan of the project was spread out upon the floor; the Prince Imperial, in leaving the room, jumped over it. "Monseigneur," said General Fave, who had introduced M. Boutet, "you have been the first to pass the bridge." The Emperor smiled, and on retiring repeated the words "we will support you." The enterprise has therefore made a decisive step in advance, inasmuch as it has received the imperial support.

NEW YORK TO WASHINGTON.—Sixty-eight years ago—it was in 1800—Uriah Tracy, of Litchfield, Connecticut, was summoned to Washington, and received an appointment as Commissioner to examine into the actual state of the Indian trading houses at the North west. His accounts are preserved, and the following items show the time and cost of the journey between New York and Washington then:—

June 30—Stage fare from New York to Philadelphia.....	\$5 00
Expenses on the road to Philadelphia.....	3 75
Expenses in Philadelphia ...	7 25
June 28—Stage fare from Philadelphia to Baltimore.....	8 00
Expenses on the road to Baltimore.....	4 12½
Expenses at Baltimore	1 25
June 25—Stage fare from Baltimore to Washington	3 50
Expenses on the road to Washington	2 25

Thirty-five dollars and twelve and a half cents for expenses on a journey which now costs but \$8.50, and occupies one day instead of five.—*New York Com. Advertiser.*

SLATE AND SLATE MINING IN PENNSYLVANIA. The slate belt proper of Pennsylvania begins some miles behind the village of Slatington, in Lehigh county, and seems to be confined to one direction. In a belt from $\frac{1}{2}$ to $\frac{3}{4}$ of a mile in width, it passes along over the bed of the Lehigh river, where at low water the slate becomes plainly visible.

Slatington is situated as it were in the very centre of this belt, and is therefore the centre of all slate operations. It is stated—on what authority we do not know—that slate found in the northern part of Alabama is mined on a continuation of this very belt. It is astonishing that capitalists have not devoted more attention to these real gold mines—the slate quarries. There is, as yet, no competition in this line, nor will there be for years to come, and the product of slate is as good as so much bullion. At present the demand is 75 per cent greater than the actual production, and is augmenting daily.

The money made by some of the Slatington quarry owners is something incredible, a few examples of which, for illustration will suffice: Mr. Henry Williams, owning a quarry just behind the village, during last summer netted over \$200 per day; Mr. David Williams' quarry, situated a few miles from the Lehigh Valley Railroad, has netted its owner from \$100 to \$150 per day, and he has repeatedly refused \$250,000 for the same, although comprising only eight acres. A few hundred feet from this is the famous Keystone Quarry, which has also netted to its owners large sums of money. The Franklin Quarry, purchased a few years since from the Lehigh Slate Company for \$89,000, could not now be bought for \$300,000. Just opposite Slatington, on the other side of the Lehigh river, we have the Twin City Quarry, which is in profitable working.

The amount of slate that can be produced from one quarry varies according to the space they have to work in. Four hands are generally employed in finishing the slate; two men for mining and blasting out the blocks, and two men for splitting and dressing it into tablets. The wages of these hands are about \$10 per day, and they can finish from 8 to 10 squares per day. [A square is generally considered ten feet each way, thus making its contents 100 square feet.] At present the slate commands a price of from \$7.50 to \$8.00 per square, and deducting expenses of carting to depot, rubbish hands (who remove the debris of the slate) and incidental expenses, it still leaves an enormous profit. Even should the price of slate fall to four or five dollars per square, there would still be a profit of 75 to 100 per cent. Thus from only one quarry and four hands, the profit can be estimated to be at least \$25 per day net. The progress of the slate business has been something stupendous. The beautiful village of Slatington has been built up in five years, and the demand for houses is enormous. Over 100 houses are to be built the coming summer, and building lots (50x150) bring (in a good location) from \$800 to \$1,200. The Pennsylvania slate is peculiarly valuable. It has a deep color, tough texture, and contains no iron pyrites, and is consequently very durable.—*V. G. Blade.*

THE GROWTH OF PHILADELPHIA.—The promise given at the early part of the building season of a large growth of the city this year will be fully realized. In the month of May the foundations of 537 dwelling houses were laid, 6 of which are to be four stories, 320 three stories, and 211 two stories in height.

There were also commenced the erection of 4 churches and a college and 13 store-houses. The total number of structures for which permits were taken out is 606; the number to which alterations and additions are to be made, 144, making 750 in all. Among the buildings are included a College of Pharmacy, to be erected on Tenth street above Cherry, 48 by 72 feet, three stories in height; also the Masonic Temple on Broad street, 150 by 239 feet.—*Public Ledger*.

The receipts of the Western Union Railroad Company, for the week ending June 30:

	1868.	1867.	Inc.	Dec.
Freight	\$17,436 06	\$10,974 08	\$6,461 98	.....
Passengers ..	4,794 50	4,111 95	682 55	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail	375 00	375 00	.....	.....

Totals..... \$23,355 55 \$15,811 03 \$7,544 52

Receipts from January 1 to June 30:

1868.....	\$323,019 36
1867.....	262,557 99
Increase.....	\$60,461 37

DURABILITY OF CAST IRON PIPES—A cast-iron water-pipe of the old Manhattan Water Company, recently taken up at the corner of John and William streets, New York City, and supposed to have been laid more than forty years ago, showed no corrosion whatever. It was of gray iron, and confirms opinions hitherto held as to the value of this variety for pipes. Some cast-iron water-pipes laid in Boston, in 1828, were recently taken up, and showed but faint signs of deterioration.

TO TUNNEL CONTRACTORS

THE Commissioners of the Troy and Greenfield Railroad and Hoosac Tunnel, acting for the State of Massachusetts, invite proposals until the 12th day of August next, for completing said Tunnel, either in separate contracts for three different sections of the work, or in one contract for the whole.

The Tunnel when completed will be $4\frac{3}{4}$ miles long.

From the **East End** the mountain has been penetrated for about one mile, and for a portion of that distance the section has been enlarged to the full width of 24 and height of 20 feet. The enlargement is required to be finished and working continued westward.

The **Central Shaft** 27 by 15 feet, has been sunk 583 feet, and remains to be sunk 447 feet to grade; and the Tunnel is to be driven in each direction therefrom.

The **West Shaft Workings**, located about half a mile from the west portal, embrace two auxiliary shafts used mainly for pumping and ventilation, and the headings driven in each direction make an aggregate length of about 2300 feet.

The depth of the west shaft to grade is 318 feet.

The **West End**, where arching is required, is already under contract to a point about 930 feet from portal, and from this point a drifting drift is to be run eastward to meet workings from west shaft, which will obviate necessity for pumping probably by the close of the present year.

The existing buildings, and the fixed machinery provided by the State for hoisting, pumping, ventilation, and supply of compressed air to the drilling machines, now successfully operating in the rapid advance of the work, will be turned over to the contractors as they are.

A sufficient appropriation has been made by the State for the completion of the whole work.

Ample sureties will be required from parties who may be contracted with, and the Governor and Council reserve the right to reject all offers that may be made.

Plans may be seen, and specifications obtained on application to B. D. FROST, Superintending Engineer, at the Engineers' Office in North Adams, Mass., or to B. H. LATROBE, Consulting Engineer, at his office, 49 Lexington street, Baltimore, Md. Specifications and other information may be had at the State House, in Boston, from TAP-PAN WENTWORTH, Commissioner, to whom proposals will be addressed.

ALVAN CROCKER,
TAP-PAN WENTWORTH } Commissioners.
S. W. BOWERMAN,

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COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
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Aug 2, 11.]

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TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00 a.m.....	7,00 p.m.
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40 p.m.....	4,03 a.m.
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30 a.m.....	10,38 p.m.
" Paterson.....	2,33 p.m.....	6,17 a.m.
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00 a.m.....	5,00 p.m.

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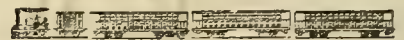
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15 foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 7:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front by East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from lot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 light

9:00 a. m.—MORNING EXPRESS for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 3:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:22 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown at 12:20 p. m.; Easton
at 1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 6:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

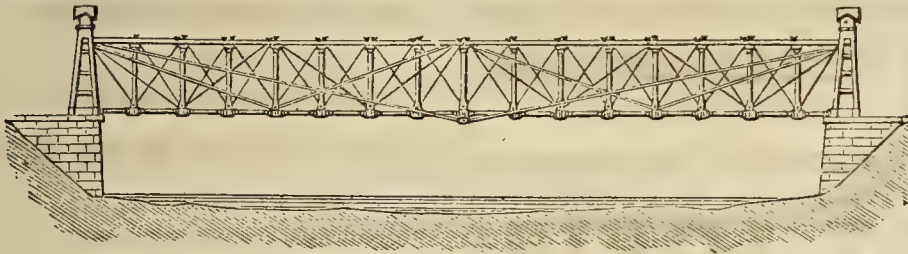
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LOED, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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C. J. Schultz, Pittsburgh, Pa.

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ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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INSTRUMENT MAKERS

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Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

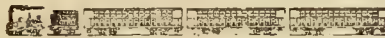
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

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THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburgh, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
my 11 Pittsburgh, Pa.

CUMBERLAND COUNTY

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Productive Wells all

around them.

FOR SALE BY

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167 Walnut Street,

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MANUFACTURERS, IMPORTERS & DEALERS

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Railroad, Car and Machine Shop

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MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

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RAILWAY SPRINGS.

FREIGHT



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LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

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Purchasing Tickets via

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—TO—

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail..	7 00 A. M.	5 25 P. M.
Richmond & Chicago..	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond..	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada..	6 00 P. M.	10 30 A. M.
Hamilton Accommodation..		6 45 A. M.
Richmond & Chicago..	7 00 P. M.	9 20 A. M.
Hamilton Accommodation..	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.**Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 01 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago
INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West.
North west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express..	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 30 am	2 30 am
Cairo and St. Louis Express.....	2 20 pm	4 08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10 10 am	8 35 am
Cornersville and Cambridge City.....	4 40 pm	9 15 am
Lawrenceburg.....	4 45 pm	2 30 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

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CORRUGATED IRON ROOFS

ARCHED AND FLAT.



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MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

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MCDANIEL & HORNER,**Locomotive and Railroad****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

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LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.**WALTER McQUEEN, Sup't.****PASCAL IRON WORKS.**

ESTABLISHED 1821.

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Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,
Gas Works Castings, etc., etc.

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Philadelphia, Wilmington & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore and Washington at 4.15 A. M., and 11.00 P. M. Leave at New York for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, JULY 16, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

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One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
" column, single insertion.....	5 00
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" " six months.....	40 00
" " per annum.....	80 00
" page, single insertion.....	75 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00

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WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connorsville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:25 P. M.
Connorsville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:05 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 P. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

THE FUTURE GREAT CITY.

Basin of the Lakes.

We return to this subject, not because of any practical importance now, where posterity shall have its great city; but because the question involves problems of great interest in relation to the growth and prospects of the country. So Mr. SCOTT has considered it, and with the question of "the Great City," we can discuss several other topics.

The food topic we have considered, and in that aspect of the case we consider it clear, that the Future Great City must be either in the Valley of the Ohio, or the Missouri. In relation to food only, it would be in the Valley of the Ohio. But, let us proceed to some other topics.

1. THE CITY ZONE, for such it may be called in relation to the world. Mr. SCOTT considers this point and gives some curious facts in relation to it. We give here Mr. SCOTT's views of this. He says:

"The current of population follows, nearly, lines of equal temperature, with a tendency to move from excesses of heat and cold toward the zone of 50 degrees Fahrenheit, mean annual temperature. This zone, according to Disturnell, has a mean width of less than two hundred miles. The north boundary-line of this zone passes through or near the following cities: Albany, Buffalo, Detroit, Racine, Sioux City, Fort Hall, Princess Royal Island, and through the middle of Queen Charlotte's Island of the Pacific. The south boundary-line in North America, passes through or near the following places: Philadelphia, Columbus, Ohio; Springfield, Illinois; St. Joseph, Missouri; Santa Fee, Great Salt Lake, Dallas, Astoria. In Europe, its north line passes westward, a little north of the Sea of Asof, through the cities of Posen, Berlin, Hamburg, Newcastle, Glasgow, and Belfast. Its south line passes at the outlet of the Sea of Asof, near Buda, Munich, Orleans, and Cape Clear.

I give below figures made up from the U. S. census of 1860, exhibiting the operation of the power of climate on city growth, within the belt embraced within the iso-therm of 48 and 52 degrees Fahrenheit. This zone, varying in width from 120 to 200 miles, embraces but a small portion of our country, but it concentrates within its limits a much greater city population than all the broad expanse on both sides of it.

POPULATION IN 1860.

Within the belt.....	4,312,700
Out of the belt.....	1,961,729

Within the favorite climate the cities have grown, since 1860, probably not less than 60 per cent. At this rate their present population amounts to 6,900,184.

At the rate of growth, estimated at 30 per cent, the city population, exterior to the favorite belt, has increased to 2,250,247.

Dr. Trembley's record of the temperature of the city of Toledo, as averaged for seven years, gives a small fraction above 50 degrees Fahrenheit. This accords with Blodgett's Climatological table, and is, doubtless, correct.

The control of climate on the movement and settlement of civilized man, is a great fact worthy of consideration, and may be of great practical value to persons looking for permanent homes. To live where capital and people can work to greatest advantage is to live in the best place."

All this is very good as far as it goes, but Mr. SCOTT has not gone to the bottom of the matter, by any means. Cities do follow the current of population, although, they do not follow any particular temperature. But where does the current of population go, and why? Man, like all other animals, pursues his peculiar food, and pursues it where he can get it easiest. This is the law of his nature. The great streams of population, therefore, flows where the isothermal line of cereal productions go, and on that line goes also, the streams of domestic animals.

In the case of cities there are some exceptions. For example: Tadmor of the Desert, and St. Petersburg, but such cities are built more as depots, on the line of commerce, and rise or fall with that line; so that Tadmor and Thebes are no more, because there are no more lines of commerce there. Let us look then if we can find the isothermal line of cereal production. Now, the great line of cereal production is the line of wheat and maize, and is that of the most populous parts of China, Japan, Turkey, Southern Europe, and Central United States. The isothermal line of Constantinople is almost the axis of it, and we see that the history of the human race confirms the principle we have laid down. The isothermal line of cereal productions has governed the current of population and made the growth of great cities historically as well as naturally. This great isothermal line passes through Constantinople, Rome; between Paris and Madrid; near, but a little south of Cincinnati, and St. Louis; through the great cities of Japan and near Peking, but a little south.

Here is the great current of human population, and in this current lies the great cities. Now, the isothermal line of Toledo passes nearly through New York, north of London, and north of all the great cities of Europe and Asia.

We see, therefore, that Mr. SCOTT's doctrine applied to the facts do not lead him to exactly right conclusions. The introduction of maize (Indian corn) into the elements of civilization has changed some of the forces necessary to produce great cities. The Valley of the Ohio is the very centre and garden of Indian corn, and will, therefore, carry with it the great stream of population. But there are other elements come in to modify this, and we are willing to consider them. The railroad is the chiefest of these, and has made artificial lines of commerce which will considerably change the channels of commerce, although it cannot materially change the lines of production.

2. THE INFLUENCE OF RAILROADS.—The influence of railroads on great cities is now beginning to be felt with great force. Chicago does not boast of her water communications so much as she does of her railroads, and but for the railroads, in bringing the materials of commerce to her door, the lake commerce would not have brought her to one-fourth her present size. But, even in exports—the carrying off of its materials—the railroads have already begun to assume superior importance. Mr. SCOTT gives us a curious illustration of this in the following table:

"The following are the routes by which the Grain Exports of Chicago, for the year 1867, were carried:

	Flour Barrels.	Wheat Bushels.	Corn Bushels.
By Lake.....	481,491	5,827,846	31,451,885
By Canal.....	218	235,758	.....
By Western & South'n R R	130,522	908,085	243,513
By East'n RR	1,554,776	3,605,618	1,452,162
	Oats Bushels.	Rye Bushels.	Barley Bushels.
By Lake.....	7,395,113	1,029,629	988,240
By Canal.....	99,132	3,586	60
By Western & South'n R R	158,314	29,219	111,657
By East'n RR	1,911,764	427,461	398,371

Thus we see that the railroads carried off 20 per cent. more wheat and flour than went by water. Indian corn is so bulky an article that it must seek the cheapest conveyance, and the propellers and barges are the cheapest. But when we reach the *ultimate* of railroad construction, can there be as many *radie* from a point on the Lake shore to one on the Ohio?

3. A WATER COMMUNICATION TO THE OCEAN. We are quite willing to consider all the topics Mr. SCOTT has brought up, in connection with the idea of building another London on the Lake shore. The following paragraph will give the reader one of his ideas:

"The day will surely come when Toledo and Chicago will have a good water-way, for lake vessels to the ocean, and by more than one route. Three new routes are practicable. That from Buffalo, by enlarging the capacity of the Erie Canal; from Oswego to Albany, occupying the same route along the Mohawk; and that by way of the St. Lawrence, the Caughuawaga Canal, to Lake Champlain, and thence to Albany. These are all practicable, without great cost. The route now in use, by way of the Welland Canal and St. Lawrence, to Montreal, needs only a moderate enlargement of its locks and canals to allow the passage of large propellers between the upper lakes and the ocean."

Well, what if it is? What benefit is expected from it? How fast does Montreal and Quebec grow with a commerce through the Gulf of St. Lawrence? Not a thousandth part of Western productions will ever find their way through the Gulf of St. Lawrence. This idea was entertained thirty years ago by the illustrious Captain MAURY, who figured in the rebel annals. He pictured forth prodigious squadrons, and navies filled with commerce, or contending for the Empire of the Lakes.

What of it? The difficulty has never been in making that outlet, but of making it of any use. As long as railroads and canals carry products quickly to the market of New York, they will never go by ocean vessels.

Now, so far as Mr. SCOTT compares Toledo with Chicago, we see no fault in his argument, and if he had extended it to Cleveland we should have thought it still more correct. Cleveland now claims 90,000 people. A great part of this is the result of manufactures. Here is Mr. SCOTT's weak point. He has made his argument wholly on commerce. This is not the cause of the growth of the greatest cities. They grow and maintain themselves by a *self-sustaining power*. If you come to Cincinnati, you will find workmen and shops to do anything in the world, and the city is self-sustaining. Until the lake cities get something else than their boasted lake commerce to depend on, they may flourish like a fast-growing weed, but will not have permanent foundations. Cleveland is beginning to get solid foundations, and is, at present, the most promising of all the lake cities. Cleveland has the means of unlimited manufacturing, and it only remains to use them. We have always been convinced that Toledo was to be a great city, but we think it will take something more than Mr. SCOTT's hundred years to make it a rival of London, New York or Cincinnati.

Southern Railroad Connection!

THE SOUTHERN END OF THE STRING!

Message of Governor Robert K. Scott

The Governor of South Carolina, in his message to the Legislature, recommends provision to be made for the construction of the Blue Ridge Railroad, and thus complete the Southern portion of this great chain of communication between the Ohio Valley and the markets of the South. The Governor takes a hopeful view of things, he says:—

THE BLUE RIDGE RAILROAD AND ITS WESTERN CONNECTIONS.

Railroads are the main arteries of commerce. They stimulate production by bringing the market within easy reach of the producer. They give an impetus to every branch of trade, while they promote unity and good will among great populations, by enabling them to circulate freely among each other. I would especially recommend that the State should furnish all the aid that it can expediently for the speedy completion of the Blue Ridge Railroad. The importance of that road to the people of the State at large can not well be over-estimated. Starting at Anderson Court-house as a prolongation of the westerly branch of the Greenville and Columbia Railroad, it will traverse portions of the counties of Anderson and Pickens, and of the States of Georgia, North Carolina, and Tennessee, having its western terminus at Knoxville,

whence it will have connections with Chattanooga, the great focal point of South-western railroads. It will also connect at Knoxville, with roads running direct to Louisville, Kentucky, and Cincinnati, Ohio. The entire length of the road will be one hundred and ninety-six miles, of which fifty-two miles lie within the limits of South Carolina. Thirty-four miles of this distance have been finished, and are now in running order, from Anderson to Walhalla.

The Blue Ridge Railroad Company in South Carolina, was chartered by the Legislature of this State in 1852, but untoward events, among them the alleged bad faith of the first contractors, have prevented the prosecution of the work upon it.

The total amount thus far expended on the road is three millions two hundred and fifty thousand dollars, (\$3,250,000). The additional amount required to complete it is stated, by the President of the road, at three millions five hundred thousand dollars, (\$3,500,000). This increased estimate of cost per mile over that portion already constructed is due to the heavy amount of tunneling that will be required in getting through the Blue Ridge. The State now owns stock in this road to the amount of one million three hundred and ten thousand dollars, (\$1,310,000).

The present bonded debt of the company is stated at two hundred and thirty thousand dollars, (\$230,000,) secured by mortgage on the road, and its running stock, Mr. J. W. Harrison, President of the company, states in a recent report that he has made of the condition and prospects of the Blue Ridge Railroad Company that "all that is expected of the State is that she shall guarantee the bonds of the Company for, say, three millions of dollars, to be issued in such sums and at such times as the progress of the work may require. And that the State shall provide for the payment of the interest on the bonds while the road is being built. For example, the company could, perhaps, expend one million of dollars a year for three years, in which time the road can be completed. The State would provide for interest on \$1,000,000:

First year	\$70,000
Second year	140,000
Third year	210,000

\$420,000

So that by an expenditure of \$420,000, to be raised by taxation in three years, this great enterprise would be secured. The State would have ample security for her guarantee. A first mortgage on the road thus eligibly located, costing \$7,500,000, with a debt of only three millions."

In view of the great commercial importance of the Blue Ridge Railroad to all sections of the State, and of the large amount of its stock that the State already holds, I recommend that your honorable bodies will take into your earnest consideration the expediency of furnishing the company such timely aid as will secure its speedy completion.

The Blue Ridge Railroad, when completed, will give us a direct connection, upon the shortest line, with the great West, with all its inexhaustible supplies of pork, beef, corn, and wheat, and will thus cheapen many of the necessities of life to our people, and at the same time furnish a valuable outlet for our own products. The city of Charleston is the nearest of all the Atlantic ports to the great States of the West, and by the construction of this road, the wealth of that imperial region will be poured into her lap.

In his general remarks, relative to Railroads, Governor Scott, says:—

According to the eighth census of the United States, there were nine hundred and eighty-seven (987) miles of railroad in South Carolina at the close of the year 1860, built at a cost of twenty-two millions three hundred and eighty-five thousand (\$22,385,000) dollars.

It may be interesting to observe that the Charleston and Hamburg road was the first passenger railway constructed in the United States. It was commenced in the spring of 1829, and six miles were completed in that year. It is a noteworthy fact that before the use of locomotives was established in Great Britain, or they were known in the United States, the directors of this road determined, under the advice of their engineer, Mr. Horatio Allen, to make them exclusively the motive power. The same gentleman, in the winter of 1829, made the drawings of the first American steam locomotive, called the "Best Friend," which was planned by Mr. E. L. Miller, of Charleston. Upon the Charleston and Hamburg road was introduced in 1831, for the first time on any railroad in the world, the important arrangement of two four-wheeled trucks for locomotives and long passenger cars.

The facts here stated are designed to show that the State has never been wanting in men of mechanical genius, with the capacity to achieve the greatest enterprises, if properly encouraged. South Carolina, although the first to initiate a railroad system, has prosecuted it to a very limited extent, compared with the demands of her commerce and the resources of her soil. The facility with which railroads can be built in this State, is evidenced by the fact that the railroads of South Carolina have cost, in their construction less per mile than any of equal length in the United States. I would recommend the fostering of these great and beneficent public enterprises by the State, so far as may be consistent with the proper maintenance of other important public interests. At the same time that railroad corporations should be generously, but judiciously fostered, suitable laws should be enacted to regulate their tariffs charges for freight and passengers, or, otherwise, they may oppress all classes by their excessive rates, and check the trade and enterprise of the people.

The following extracts from the message shows the financial condition and resources of the State of South Carolina:

FINANCE AND STATE DEBT.

The information that I now have places the valid debt of the State, exclusive of the war debt, at about five millions five hundred thousand dollars (\$5,500,000). This debt is very small compared with that of other States and the resources of the State; and if proper measures are taken to promptly liquidate the interest due upon it, the credit of South Carolina will stand as high as that of any State in the Union.

I would recommend the funding of the unpaid interest now due upon the State debt, and also, that accruing up to a period when the State will, without doubt, be able to meet her liabilities; and would suggest the 1st of July, 1869, as the date to which it should be funded.

TAXATION.

It is proper for me here to call your attention to the fact that under a recent decision of the Supreme Court of the United States,

National Banks, within the limits of the State, are subject to State taxation; while the property of railroad companies, municipalities and all other corporations will be embraced in your general tax bill.

The assessed value of the real estate of South Carolina in 1860 was \$129,772,684. This value has, of course, been materially lessened by the violent convulsions of trade and the industrial interests of the people during the past seven years, yet it serves to indicate that with every allowance for the known reduction in the market value of our real estate, that even upon a minimum assessment of values it will form an important basis of taxation and of the financial resources of the State.

Central Pacific Railroad!

ACROSS THE SIERRA NEVADA!

First Passenger Train from Sacramento over the Mountains.

For the past two weeks and more, with the thermometer in the nineties, and over, we think that we could really have enjoyed the trip described by a correspondent of the *Alta California*, as the FIRST PASSENGER TRAIN across the mountains, on the 18th of June. The grandeur and coolness of the thing is so apparent that we feel refreshed,—and doubt not that an eminently practical people as we Americans are, will fully appreciate this great and *only through route* between the Atlantic and Pacific. We want, however, to be fully understood that while we would not detract one tittle from the sublimity and grandeur of this great enterprise, nor withhold one stiver from its resources, yet we can not resist the temptation to inquire "at what season of the year will the track be free from interrupting snows and avalanches?" Promising for *through traffic*, isn't it?

"The correspondent of *The Alta California* says: At 67 miles from Sacramento we look down upon the well-nigh exhausted placers and town of Dutch Flat; flat enough the town appears at this time. Two miles further on we reach Alta, at an elevation of 3,625 feet above the sea, almost the height of the summit of Mount Diablo. Passing Shady Run Station, we reach the first tunnel, 500 feet in length, 75 miles from Sacramento, and 4,500 feet above the sea. The mountains are growing more rugged, and the snow-fields come down to a level with the road. Still up, up; the trees grow smaller; cedars, tamaracks and firs take the place of the noble pines, and we no longer see the red earth of the gold belt below. Gray granite rocks are growing plentier, and the small mountain peaks on either side of the road begin to show bald heads. We are in the heart of the Sierra—a barren, dreary, desolate country. At Emigrant Gap, 84 miles above Sacramento, we meet the down train at last, and the road is open before us. Another tunnel, 300 feet in length. We pass Crystal Lake, and are at Cisco, a town of shanties, which was for a long time the terminus of the road. We are 5,900 feet above the sea, and still ascending. The pines have almost entirely disappeared, and we pass through many long cuts blasted through

the solid granite spurs of the mountains. We traverse continuous snow-fields and immense drifts, through which the road has been cut with shovels for the passing of the trains. One hundred and two miles from Sacramento we reach Summit Valley, and stand 6,800 feet above the level of the sea. Lift Mount Tama bodily from its base, and place it on the summit of Mount Diablo, and we could still look down by hundreds of feet on the double mountain height. The snow banks rise high above the road on either side. Two miles more and the cars reach the entrance of the great tunnel, 1,659 feet in length. We have scaled the great Sierra at last. We are 7,034 feet above the level of the sea. The air feels cold and damp, but not oppressive, and we experience no inconvenience from its rarification at this great elevation. The snow lies piled in immense banks above the tunnel, and rises in solid banks, with sheer precipitous sides, on either side of the track. A swarm of Chinamen are busy about the other end of the tunnel shoveling away the snow which has come down in great slides, bringing with it huge granite rocks upon the track. The water pours down in torrents from numberless crevices and seams in the granite walls and roof of the long, dark, cavernous tunnel, but we struggle through on foot, and anxiously inquire after the prospect of getting the train across the mountain. Two or three hours will clear the track. We wait with what patience we may, and at last, at 4 o'clock, the prolonged whistle of the good locomotive Antelope, which has drawn us to the summit of the Sierra, is heard. "All aboard," shouts the conductor, George Wood, who has the honor of taking the first passenger train across the mountains, and the train moves slowly on. A halt for another slide; another halt, and so on, slowly and carefully. The snow banks come down so close to the track that the eaves of the cars rake them on either side. It is the closest fit imaginable. Six more tunnels, ranging from 100 to 865 feet each in length, in many of which we see great masses of solid blue ice, hanging down from the wall like stalactites and stalagmites in the Mammoth Cave of Kentucky, are slowly passed through. We have descended 600 feet already, and, as we emerge from the last tunnel, the conductor exclaims: "By Heaven, we are over the mountains." And now the train, with accelerated speed moves steadily downward toward the Valley of the Truckee. The steam is shut off, the breaks put down, and, as the eagle sets his wing and floats noiselessly down, down, through the realms of air toward the earth from his eyrie among the clouds, we slide swiftly and smoothly down the acclivities of the mountains into the Great Basin of Nevada. Donner Lake, as lovely a sheet of water as is to be found on earth, lies far below us among the pine clad hills, its bosom unruffled by a breath of breeze, and as blue and calm as the heavens above it. The road winds around the precipitous mountain sides, almost encircling Donner Lake as it descends, and following around a long canyon, making a circuit of seven miles to gain advance of no more than a quarter of a mile, we reach the outlet of the lake, a swift, rushing stream of blue cold water. We have traveled nine and a half miles and descended 783 feet since leaving the summit. Now we descend rapidly, on one of the most beautifully smooth and solid roads on the continent, into the romantic valley of the Truckee, whose mountain torrents come rushing and roaring out of the mountains from the southward, hidden in which lies the

loveliest sheet of water on earth, Lake Tahoe. The timber here is immense, and from this source the supplies for building the road for hundreds of miles eastward are to be drawn. Saw-mills by the dozen, driven by the rushing river, line the banks of the stream for miles and miles, and the hills swarm with laborers of every nationality and hue, Europeans, Americans, Africans and Asiatics, the latter immensely preponderating in number.) engaged in cutting down and preparing the timber for the road. The whistle sounds a long shrill scream, and the train arrives at Truckee station—Coburn's—119 miles from Sacramento, and 5,860 feet above the sea. The portion of the trip between this point and Summit Valley had, until this day, June 18th, been made by stages. As we pass we see the jaded stage horses looking wonderingly, and, as it seems to us, joyously, at the swift-speeding train; their weary toil through mountain snows and mud is over, and now the stage-men will pull down their stables and pack up their traps, the drivers will "fold their tents like the arab," and horses and men will "as silently steal away," to be seen no more here forever. Passing through two more tunnels, and crossing and recrossing the "exulting and abounding river," as it leaps full of fierce, fresh mountain life and energy down toward the desert plains, we immerge at last into the open, treeless mountain of Nevada, with the snow-clad heights of Washoe Mountains, the wondrous Silver Lake before us. Just as the last faint light of day fades from the summit of the Sierra, the long, shrill, joyous shout of the locomotive announces our arrival at our journey's end, 19 miles from Virginia, and we find ourselves 154 miles from Sacramento, in Reno, a town of stores, hotels, saloons, gambling-houses, and livery stables, which has sprung up like magic within a month. The whole population, men, women, and children, rush out to welcome us. Thus ends the story of the first passenger train over the Sierra Nevada."

Toledo, Peoria & Warsaw Railway.

This road will form an important link in the great midland line which, commencing at New York, Philadelphia and Baltimore, passes through Pittsburg, Pa., Steubenville and Columbus, O., Logansport, Ind., and Peoria, Ill., to the Mississippi at Warsaw and Burlington, at these points to connect with the lines across the Iowa to the Missouri River and the several Pacific Railroads already constructed or to be constructed. This route being much shorter—at least 100 miles—than that by Chicago, must naturally command a large share of trans-continental commerce.

The Toledo, Peoria and Warsaw Railroad is wholly within the State of Illinois. It commences on the Indiana line where it connects with the Columbus, Chicago and Indiana Central Railroad, a recent consolidation, of which we gave an account in the *Chronicle* of March 7, 1868. From this point it extends in a straight line to Peoria, 111 miles, and so far has been open several years, and operated under the name of the Logansport, Peoria and Burlington Railroad. From Peoria to Warsaw the distance is 119 miles, of which 66 miles were brought into operation January 1, 1868, and the remaining 53 miles are to be completed on or before July 4 of the current year. A branch is also to be built from La Harpe on the main line to Burlington on the Mississippi. The line between Peoria and Keokuk formerly belonged

to the Mississippi and Wabash Railroad Company, but was consolidated with the Logansport, Peoria and Burlington Railroad in 1865, under the name, as above, of the Toledo, Peoria and Warsaw.

The rolling stock owned by the company at the close of the year 1867, consisted of 21 locomotives and 334 cars, of which 8 were passenger, 6 baggage, mail and express, 6 conductors' and the remainder freight and coal cars.

The earnings of the road from Peoria to the Indiana State line, 111 miles, amounted in 1867 to \$574,462 28, and were derived from the following sources, viz: passengers \$182,746 29, freight \$329,512 44, mails 9,850 00, express \$7,415 85, military \$1,071 71, rent of road \$25,000, rent of cars \$3,221 53, and miscellaneous \$15,644 93. The operating expenses, including taxes, &c., amounted to \$387,457 63. The net earnings were \$187,005 23.

The gross earnings per mile were in 1866 \$5,060 02, and in 1867 \$5,175 34—increase 2.28 per cent.

The net earnings were in 1866 \$1,549 24, and in 1867 \$1,684 73—increase 8.74 per cent.

The proportion of expenses to earnings was in 1866 69.38 per cent., and in 1867 67.44 per cent—decrease 1.94 per cent.

The total revenue from operations, including \$212,086 04 from previous year, was \$786,548 90, and the total expenditures, including interest on bonds \$111,965, amounting to \$499,422 63; balance to credit of income \$287,126 27. The financial condition of the company at the close of 1867 is shown in the following general statement:

Capital—Com'n stock	\$1,115,400 00	
1st pref'd stock	1,651,316 42	
2d pref'd stock	908,400 00	\$3,675,116 42
Funded debt—		
1st mortgage 7		
p. c. bonds E D	\$1,600,000 00	
1st mortgage 7		
p. c. bonds W D	775,000 00	
2d mortgage 7		
p. c. bonds W D	498,000 00	2,873,000 00
Construction accounts unpaid.....		122,411 85
Open acc'ts (operating).....		50,569 30
Bills payable.....		56,023 18
Sinking fund (required by Illinois Cen. Railroad earnings).....		72,021 58
Income account; surplus earn'gs.....		287,126 27
Total.....		\$7,136,268 60
Against this amount are charged, viz.:		
Rail'y construction.....	\$6,456,555 91	
Equipment; engines and cars	600,700 00	7,057,255 91
Sundry balances (operating).....		9,278 71
Cash and cash items.....		17,223 07
Materials and fuel on hand.....		52,510 91
Total.....		\$7,136,268 90

The road and equipment will cost about \$9,200,000, or \$40,000 per mile. The means of the company to carry the work to completion appear to be ample, the contractors taking a large part of their pay in stocks and bonds.—*Chronicle*.

Michigan Central Railway.—Annual Report.

The annual report of the officers of the Michigan Central Railroad for the year ending May 31, 1868, are now out, and from them we glean the following particulars:

The earnings of the road for the year have been in gross as follows: \$4,470,897 64, and the expenses, \$3,526,551 60, leaving net earnings, \$944,328 04. These earnings are in excess of the year ending May 31, 1867, \$145,389 13, while the expenses have been less by \$112,231 57. Excess of net earnings, \$257,620 70 during the past year over those of the previous year. The amount invested in the sinking fund, from the current earnings of the road, now amounts to the sum of \$1,195,728 92. The Company owes no floating debt of any description. The funded debt now amounts to \$6,968,988 89; less the sinking funds, \$1,195,728 92; net bonded debt, \$5,775,289 97; capital stock, \$8,477,366; total bonded debt and stocks, \$14,250,625 97. The bonded debt has been decreased during the year by the conversion of bonds into stock to the amount of \$300,000, while the stock has been increased to the amount of the bonds thus converted, and also by the amount of \$196,700 of new stock, being a balance unsold at the date of the last report, authorized by the Board, in March, 1867. The business of the year has been, on the whole satisfactory, while there has been a small diminution in the amount of passenger business, which has fallen off, as compared with the previous year, to the amount of \$162,718 78. There has been an increase in the freight and miscellaneous business, aggregating \$248,107 91. The falling off in the amount of passenger business is, to a considerable extent, owing to a reduction of rates of fare, influenced by the inauguration of new competing lines, and also, to some extent, to habit in which railroad managers have fallen of paying commissions on the sales of passenger tickets, a practice which sensibly affects the revenues of every company which allows it, and still more those of any company which does not resort to it while it is permitted by competing roads. It has been found possible considerably to diminish the expenses of working the road during the year, and it is confidently expected that still better results will be attained the coming year. The track of the road and its equipment, both of machinery and rolling stock, has been fully kept up to the high standard which they have for so many years maintained. Its passenger rolling stock has been much improved, and the road itself, perhaps, is in a better condition than at any former period. There has been a material reduction of expenses in each department. The equipment of the road now consists of 98 locomotives, 67 first-class passenger coaches, of which 10 are Pullman's sleeping and day coaches, 4 second-class, and 14 military cars, used for transportation of emigrants, 20 baggage and mail cars, 30 accommodation cars, for drovers, &c., and 1,480 freight cars for all purposes. There have been relaid, during the past year, about 40 miles of new track, including three miles of street rails. The amount relaid has been a little larger than is usual, the average for a term of years being somewhat less. The steel rail, thus far, has hardly borne the test, having been found more liable to break than iron. As the average life of iron on the road is about eight years, it is somewhat more than questionable if it will be found economical to substitute steel for iron in the track on the

road. At stations, and where the life of the iron is short from great wear, it is expedient, perhaps, to make the substitution. During the month of March the business of the road was nearly broken up by the extraordinary floods in Michigan, and along the lines of its eastern connections to New York, the business of each road having been successfully interrupted during the month, and subjecting this company to a large loss of business. The President's report gives encouraging mention of the progress of railway improvement in Michigan in the new lines from Jackson to Lansing and Saginaw, and Grand Rapids, as also from Kalamazoo to Grand Rapids, all of great value to the Michigan railway system, and as feeders to the Michigan Central line.

United States Supreme Court.

THE QUESTION OF THE RIGHT TO TAX PUBLIC TRAVEL—THE STATES HAVE NO AUTHORITY TO IMPOSE SUCH A TAX.

William H. Crondell, Plaintiff in Error, vs. The State of Nevada. In Error to the Supreme Court of the State of Nevada.—Mr. Justice Miller delivered the opinion of the court:—The question for the first time presented to the court by this record is one of importance. The proposition to be considered is the right of a State to levy a tax upon persons residing in the State who may wish to get out of it, and upon persons not residing in it who may have occasion to pass through it. The plaintiff in error, who was the agent of a Stage Company engaged in carrying passengers through the State of Nevada, was arrested for refusing to report the number of passengers that had been carried by the coaches of his company and for refusing to pay the tax of one dollar imposed on each passenger by the law of that State. He pleaded in good form that the law of the State under which he was prosecuted was void, because it was in conflict with the constitution of the United States, and his plea being overruled his case came into the Supreme Court of the State, where it was decided against the claim thus set up under the federal constitution. The provisions of the statute charged to be in violation of the constitution are to be found in sections ninety and ninety-one of the Revenue act of 1865, page 271 of the statutes of Nevada for that year. Section ninety enacts that "there shall be levied and collected a capitation tax of one dollar upon every person leaving the State by any vehicle employed in transporting passengers for hire; and that the proprietors so engaged shall pay said tax of one dollar for each and every person so conveyed from the State." It is claimed by counsel for the State that the tax thus levied is not a tax upon the passengers, but upon the business of the carrier who transports him. If the act were more skillfully drawn to sustain this hypothesis than it is, we should be very reluctant to admit that any form of words which had the effect to compel every person traveling through the country by the common and usual modes of public conveyance to pay a specific sum to the State was not a tax upon the right thus exercised. The statute before us is not, however, embarrassed, by any nice difficulties of this character. The language which we have just quoted is, that there shall be levied and collected a capitation tax upon every person leaving the State by any railroad or stage coach; and the remaining provisions of the act which refer to this tax only provide a mode of collecting it. Having determined that the statute

of Nevada imposes a tax upon the passenger for the privilege of leaving the State, or passing through it by the ordinary mode of passenger travel, we proceed to inquire if it is for that reason in conflict with the constitution of the United States. The proposition that the power to regulate commerce, as granted to Congress by the constitution, necessarily excludes the exercise by the States of any of the power granted thereto, and is one which has been much considered in this court. In the case of *Cooley vs. Board of Wardens*, 12 How., 299, four years later, the same questions came directly before the court in reference to the local laws of the port of Philadelphia concerning pilots. It was claimed that they constituted a regulation of commerce, and were therefore void. The court held that they did come within the meaning of the term "to regulate commerce," but that, until Congress made regulations concerning pilots, the States were competent to do so. Perhaps no more satisfactory solution has ever been given of this vexed question than the one furnished by the court in that case. After showing that there are some powers granted to Congress which are exclusive of similar powers in the States because they are declared to be so, and that other powers are necessarily so from their very nature, the court proceeds to say that the authority to regulate commerce with foreign nations and among the States includes within its compass powers which can only be exercised by Congress, as well as powers which, from their nature, can best be exercised by the State Legislatures, to which latter class the regulation of pilots belongs. "Whatever subjects of this power are in their nature national, or admit of one uniform system or plan of regulation, may justly be said to be of such a nature as to require exclusive legislation by Congress." In the case of *Gillman vs. Philadelphia*, 3 Wall, 713, this doctrine is reaffirmed, and under it a bridge across the stream navigable from the ocean, authorized by State law, was held to be well authorized in the absence of any legislation by Congress affecting the matter. In the case before us it may be said that a tax of one dollar for passing through the State of Nevada, by stage, coach, or by railroad, cannot sensibly affect any function of the government, or deprive a citizen of any valuable right. But if the State can tax a railroad passenger one dollar it can tax him one thousand dollars. If one State can do this so can every State. And thus one or more States, covering the only practicable routes of travel from the East to the West, or from the North to the South, may totally prevent or seriously hinder all transportation of passengers from one part of the country to the other. But the principles contended for here may be found more clearly stated in the dissenting opinion of the Chief Justice in those cases and with more direct pertinency to the case now before us than anywhere else. After expressing his views fully in favor of the validity of the tax, which he said had exclusive reference to foreigners, so far as those cases were concerned, he proceeds to say, for the purpose of preventing misapprehension, that so far as the tax affected American citizens, it could not, in his opinion, be maintained. He then adds:—"Living as we do under a common government, charged with the great concern of the whole Union, every citizen of the United States, from the most remote States or Territories, is entitled to free access, not only to the principal departments established at Washington, but also to its judicial tribunals and public offices in every State of the Union.

* * * For all the great purposes for which the federal government was formed we are one people, with one common country. We are all citizens of the United States, and as members of the same community must have the right to pass and repass through every part of it without interruption as freely as in our own State, and a bar imposed by a State for entering its territories or harbors is inconsistent with the rights which belong to citizens of other States as members of the Union and with the objects which that Union was intended to attain. Such a power in the States could produce nothing but discord and mutual irritation, and they very clearly do not possess it." Those principles, as we have already stated them in this opinion, must govern the present case.

The judgment of the Supreme Court of the State of Nevada is therefore reversed, and the case remanded to that court, with directions to discharge the plaintiff in error from custody.

Mr. Justice Clifford—I agree that the State law in question is unconstitutional and void, but I am not able to concur in the principal reasons assigned in the opinion of the court in support of that conclusion. On the contrary, I hold that the act of the State Legislature is inconsistent with the power conferred upon Congress to regulate commerce among the several States, and I think the judgment of the court should have been placed exclusively upon that ground. Strong doubts are entertained by me whether Congress possesses the power to levy any such tax, but whether so or not, I am clear that the State Legislature cannot impose any such burden upon commerce among the several States. Such commerce is secured against such legislation in the States by the constitution, irrespective of any Congressional action. The Chief Justice also dissents and concurs in the views I have expressed.

Day-Dreams and their Uses.

"DREAM, oh! youth," says Bulwer in one of his loftiest stories of household life; "dream manfully and nobly, and thy dreams shall be prophets;" and before him Schiller struck a kindred chord when he bade the reader "cling to the dreams of his youth;" while Victor Hugo puts the thought to the test of practical suggestion, in language that may be paraphrased, "We might more often tell the real nature of man by his day-dreams, if we knew them, than by his actions, for the dream is the spontaneous offshoot of his being, but his acts may be governed or produced by external circumstances." Indeed, if we could penetrate the veil underneath which the human heart and brain are shielded, we should find that the day-dreams cherished there exert a manifold influence upon the characteristics of men, and, whether for failure or success, point as with an index finger to their future destinies.

There are probably few classes among the myriads of earth's workers in whom the dreaming or imaginative faculty is more fully developed, and in whom it is accorded greater range, than among inventors, for ideality and constructiveness are the agencies that gave birth to new creations of beauty and usefulness alike in science and in art, and the same in all molds from the common incidents and appliances of life the forms of beauty and utility that endure for ever.

No improvement ever came into the world but had its archetype in the dreams of him

who made it, and although the thoughts of the writer, the subjects of the artist, and the mechanical principles of the projector may all be old, yet imagination in each case arranges them in new relations with each other, and the hitherto unknown form looms up the incarnation of the dream.

In the old times a painter took for his model the face of a woman he saw passing in the street, and under his brush the coarse features softened until the calm lineaments that his imagination had pictured looked down from the walls of the Vatican, where men stop to gaze and ponder upon their wondrous beauty to this day. Later a poet noted the deeper and softer elements of the human nature around him, then wrapping them in the folds of his own thought, wrote the story of Genevieve, and for ever after the world refused to forget the song. So, once, a man thought that the futile experiments of those who had lived before him might yet be brought to more useful form, and in his day-dreams saw machinery moving without power of horse or wind or water, and anon the dream took shape in the productions of the forge and the foundery, and now the great pulse of the world beats with the throb of steam; yet had there been no dreaming, no kindling amid the shade of the present of uncreated light to illumine the future, no angel face would have beamed from the temple wall, no rhyme would have made misty the eyes of the thoughtful, and no new motor would have guerdoned the earth with its colossal power. Surely the day-dreams that gave birth to these had their uses in the world.

We know that while we write, in workshops where the floors jar with the motion of drill and planer and engine lathe, and where sharp tools cut and chisel and mold wood into a thousand shapes of usefulness; in ship-yards, where the sound of the hammer and calking mallet are never stilled, and on farms where the harvester and the horse-rake are brought out ready for their work, there are men who are dreaming dreams in which new machines stand out to their gaze in fairer proportions and with greater promise than those they have known before, in which new processes take form to produce results greater and more useful than the old methods have ever done, and, whether the use of the day-dream shall be to guide the inventor on to triumph and success, or, like a will-o'-the-wisp, lead him to failure and disappointment, must in each case depend upon the manner in which he reads the histories that other dreams have left in the annals of mankind, and which teach but the single and oft-reiterated moral, that, no matter how fair the vision, it can only be realized by long labor and strict obedience to the laws which, in their respective spheres, control every department of human effort. Had Michael Angelo neglected to acquire every detail of skill and practice that related to the art of the painter, his hand would have been unable to execute the conception of his brain, his work would have had no existence and his name would have been forgotten; had Coleridge neglected the ordinary rules of composition, his poem would never have taken its splendid literary guise, and would have been but a failure; and in like manner had not Watt been a master of the mechanical science of his time he could not have surmounted the innumerable obstacles that came in his way, and his grand career would never have been; so that we see from these and unnumbered illustrations that may be produced in addition thereto, that though the day-dream may originate and

shape the possibility, the practical, and that alone, can bring the possibility to full fruition. Let the inventor lose sight of the principles that constitute the groundwork of the branch in which he strives to excel, and his day-dream will be but a wave broken to foam and nothingness against the rocks; but let him bear them well in mind, and the day-dream will be at once the cause and the prophet of success.—*American Artisan.*

The Coal and Iron Regions of Pennsylvania.

Among the eulogistic accounts, says the *Mining Register*, of the regions visited by the National Board of Trade in their excursions through Eastern Pennsylvania, one of the most interesting is that given in the *Boston Commercial Bulletin*, from which we make the following extracts:

At Reading, the capital of Berks county, the Reading Railroad Company has its machine and repair shop, a vast establishment well worth a visit from all who are interested in manufactures or machinery. The great repair shop is two hundred feet long.—Here we saw what may be styled a hospital of sick and disabled locomotives; there they stood, twenty or thirty of them, like great stalled elephants, with the workmen hammering and scraping and filing away upon their brown hides. On every side were machines punching and boring and cutting iron, turning lathes taking off iron shavings, and sturdy drills whirling out iron dust in glittering heaps; it was hammered and cut and shaped and twisted and bored by sturdy little machines, which seemed to be hectoring and tantalizing it, by showing what an easy, cheese-like metal iron was to them; for all its boast of strength and hardness. And what a sight of work this same Reading road has to do in iron, steel and machinery! Two hundred and eighty locomotives and sixteen hundred cars roll upon its tracks, five thousand men sign their names to its pay roll, eighteen hundred wield the mechanics' implements of power in its workshops.

Leaving this busy scene the excursionists struck right through Lebanon Valley, leaving also at Reading the extensive works of Seyfert, McManus & Co., a huge affair, embracing furnace, rolling mills, flue and pipe works, and nail factory; also the two furnaces of Eckert & Bro., and the fine rolling mills of McIlvaine & Sons, and through a fine agricultural country, with the Blue Ridge (so called) in the distance, approached the Cornwall mines, owned principally by G. Dawson Coleman. These mines consist principally of three hills of ore banks, known as the Big Hill, Middle Hill, and Grassy Hill. The Big Hill is 350 feet in height, covering 2,000 acres, and is literally a mass of iron ore, which has only to be quarried out like so much stone. A spiral railway runs to the summit, and we were pushed nearly to the top of it in an excursion train, making a complete circuit of the mountain two and a half times, in an ascent of 328 feet, and enjoying the magnificent landscape of Lebanon Valley, spread out to view beneath, affording a sweep of vision for twenty miles or more, of green fields, cottages, running streams, and the great black mounds of collieries, with here and there a tall chimney sending up its smoky incense into the pure blue above.

Some idea of the richness of this mountain may be got from the fact that 26 acres of ore are in sight, a thousand tons has been taken

from it in a single day, and about two hundred thousand tons per annum is its product of ore, giving 52 per cent. of pure iron; it has been mined for nearly a hundred years, and the cost now of getting out the ore and delivering it at the furnace is about twelve and one-half cents a ton.

The Reading Railroad car works strike the visitor with astonishment by the vast extent of their housing; the immense building, 700 feet in length and 165 feet wide, one single vast area, is the largest of the kind in the country, encloses about two acres, and affords ample space and opportunity for the machinery, driven by a 70 horse power engine, and the army of mechanics employed. A double railway track runs through the premises, on which are kept stored a stock of the manufactured materials used upon the Reading road, so that duplicates of any of its component parts, or its machinery, can be forwarded from here on demand. The whizz of shafts, the buzz of circular saws, clatter of turning lathes, and the hurrying to and fro of workmen over the cool, smooth asphalt floor, in the performance of their tasks, was a busy and animated scene. Here we saw one of the locomotives of the olden time, the Catawissa, built by Berry, of England, for the little Schuylkill Railroad, in 1832, a rude, inferior, and clumsy looking little dwarf compared with the ponderous steel limbed giants that now rush over its iron pathway. Mr. J. E. Wootton, the engineer of machinery of these works, displayed to his visitors the wonderful hydraulic "lift" or elevator, which would raise a heavily loaded car from one point to another, to save running up a grade. This is done by hydrostatic pressure of 1,500 lbs. to the square inch. It was got up by Mr. Wootton, and is the only one, we believe, in use for this purpose.

Another work of great interest is the great rolling mill of the company. Here three immense engines, of one hundred and seventy-five horse power each, keep the forges in a roaring glow and the machinery in untiring whirl day and night. Eighty tons per day of rails are turned out here, averaging about sixty-four pounds to the yard.

From this fiery scene of busy enterprise the excursion party was borne away over a stretch of romantic landscape upon which here and there rose the great mounds of waste from the collieries; coal and coal trains were plenty; the black diamonds became so abundant and were scattered about everywhere with such prodigality that it became a matter of wonder how the ton of coal, which the enterprising coal dealers have cut down to 2,000 lbs., (shorn of 240 lbs.) could ever cost so much as it does in Massachusetts.

The journey through the Lehigh Valley gave the tourists an opportunity of enjoying river, mountain, and landscape scenery; and just before arriving at Wilkesbarre, the whole of the beautiful vale of Wyoming came into view, as lovely as a fairy picture, in the June sunset; and as we wound in and out on our tortuous course among the hills towards the town, the long reaches of lovely landscape in this beautiful valley were continually coming into view in new and varying aspects. Before reaching Wilkesbarre, we visited the celebrated Baltimore coal mine, about two miles distant.—The appearance of the entrance to these mines is striking and remarkable, reminding one of the enormous half sand buried temples on the Nile. A great horizontal wall, twenty-five feet high, of pure coal, in the hillside, with four high entrances;

each large enough for a four-horse stage-coach to drive in, and the great black grottoes supported within by rows of immense pillars of pure coal, attested the extraordinary richness of the deposits. These great drifts were carried right in from the open hill-side, and were intersected by cross cuts through the vein, which is thirty feet in thickness. Mining is now going on about three-quarters of a mile from these grand entrances, at which point it is three hundred feet below the surface of the earth. Inconveniently near the surface it sometimes runs, as we saw by two huge "sink holes" or circular depressions on the surface in a field, which marked the sinking or falling in of the mine beneath. A noticeable feature of the Union and Baltimore collieries was the neatness of their colliery buildings and sheds, and the comparative air of cleanliness and comfort of the miner's dwellings, in striking contrast to those previously seen.

Among other collieries, in the vicinity of Wilkesbarre, that attracted attention was that of the Mineral Spring Coal Company, said to produce the purest anthracite yet discovered. This colliery turns out 350 tons per day and employs 200 hands; it owns 600 acres of land and has a capital of two million dollars.

Next morning the Lehigh coal district received attention. There are 6,000 acres of coal land belonging to the Lehigh Company, and its collieries turn out 500,000 tons of coal per annum.

The Lehigh Crane Iron Works, at Catasauqua, was our last grand sight in this region. They are a wonder, and the huge engines marvels of mechanical construction. One is a giant of one thousand horse-power, throwing up lightly its gigantic walking beam of 6,800 lbs., and with a ten-foot stroke, carrying round and round a great wheel twenty-seven feet in diameter. Opposite it, in the same engine-room, is another monster of fifteen hundred horse-power, the largest engine in the world, built by I. P. Morris, Towne & Co., of Philadelphia, and its great walking beam, of nearly three tons, smoothly working between the huge iron pillars forty feet high. These huge engines deliver forty thousand cubic feet of air per minute, to the furnaces, and work in such style as excite admiration from the spectator. In these works are five furnaces, and the product is about one thousand tons of metal a week. We saw a furnace opened during our visit, and the liquid iron ran out, a broad, red, glowing brook, down a main channel, turning off into the innumerable moulds formed for it, in the sand, and making the well known pig iron of trade. The Lehigh Crane Iron Co., have another "works," we were informed, containing also five furnaces, both consuming over two hundred thousand tons of coal, the capital of the company being over a million, and over a thousand operatives employed. The cost of the monster engine, above mentioned, including its foundations or setting, was \$160,000. Mr. D. Thomas, the former superintendent of these works, and who pointed out many objects of interest in and about them, came to this country from Wales, and was the first man who made iron with anthracite coal.

When the head of a cold chisel has been battered, so that the steel "rags" over the edge, the edges of the head should always be ground off. The "ragging" is very hard and flinty, and apt to fly at the blow of the hammer, and a particle lodged in the holding hand, is an uncomfortable companion.

POSSESSION OF MINERAL STRATA.—A point of some importance to speculators in coal lands has recently been decided by the Supreme Court. A. purchased of B. the coal contained in a tract of land, but for more than twenty-one years neither took possession nor exercised acts of ownership; while B. opened a vein, and from time to time during that period took out coal for the use of himself and some of his neighbors. B. then claimed to have acquired a title to the coal by adverse possession, under the statute of limitations. The court, however, held that he had thereby acquired no right to the coal.

It is the general presumption that the party having possession of the surface has also possession of the sub soil, because ordinarily the right to the surface is not severed from the right to the strata below. But the rights to the different strata may be severed; and when they are once severed, this presumption no longer exists, and the possession follows the title. Each then becomes a distinct possession; and the possession of the surface is as distinct from that of the mineral beneath as the possession of one tract of land is from that of another tract in contact with it. Hence, the owner of the surface can acquire no title to the strata beneath, which are severed by conveyance or reservation, merely by his exclusive possession of the surface. Nor does the owner of the mineral thus severed lose his right or his possession by any length of nonuser. He must be disseized to lose his right; and there can be no disseizin that does not take the mineral actually out of his possession. If the owner of a coal mine is not in actual possession, and the owner of the surface, or any other person, enters and carries on mining operations continuously for the statutory period, he may acquire a right. In such a case, he takes actual possession of the entire body of minerals in the tract, and may therefore acquire a title to the whole. But as there can be no residence on the coal, or cultivation, there can be no ouster of the owner without a continual hold on the mine. The owner of the surface can not acquire right by taking out coal for family use. (3 P. F. Sm. 284.)—*Hazleton Sentinel.*

SUPERIORITY OF AMERICAN CAST-STEEL.—Experiments just made at the Navy Department, Washington, with cast-steel resulted in favor of an American brand—that of the Black Diamond Company, Pittsburg, Pa.—which stood the extraordinary test of 242,100 pounds tensile strength to the square inch, being the highest on record, and showing a superiority over English manufacture.

SILICATE PAINT FOR STOVES AND OVENS.—Black-lead is a great institution in England, and probably few but cooks and housemaids would care to see its use diminished. It certainly has its recommendations, but it can hardly be said to be ornamental, while it entails an immense amount of labor on our servants. In Germany, where a stove and sort of kitchen range is continually to be found in the common sitting-room of a respectable family, the unsightliness seems to have been felt, and a suggestion has been made to do away with the black lead and paint the stoves and ovens. Oil paint, of course, cannot be employed, but water-glass (silicate of potash) colored with pigment to match the paint of the apartment is the material recommended. Before this is applied the iron must be thoroughly cleaned from grease, and all rust-

spots must be rubbed off with a scratch brush. Two or three coats of the paint may then be put on and allowed to dry, after which the fire may be lighted without fear of injury to the color, which may, indeed, be heated to redness. Grease or milk spilt over the paint has no effect upon it, and it may be kept clean by washing with soap and water. Dutch-ovens and like utensils may also be coated with the same materials, and the labor spent in polishing be saved. A good coating of the paint, the author says, will last a year or two.

NEW STREET PAVEMENT.—The new mode of laying granite pavement has been tried in Duke street, Smithfield, in which it will be subjected to the severest test, as the heavy traffic from the new roads station of the Great Western Railway will pass over it. The plan consists of laying down granite blocks of six inches by four inches on a simple bed and filling in the interstices with a very coarse gravel, and then pouring on a very hot or liquidified cement of gas asphalt. This liquified asphalt runs down between the blocks to the bottom, and firmly cements the whole pavement into one mass, which is thus rendered impervious to water from above or from below, consequently the rain at once runs off, and the bed always remaining dry, no pumping up of mud can occur from between the blocks of granite, so that the pavement always remains clean, and neither mud in wet weather, nor dust in dry weather, can arise where this mode is adopted. This plan has been tried at the suggestion of Mr. Pedlar, who prevailed on the Commissioners of Sewers to lay down a specimen, and, judging from its success at Manchester, it is hoped that it will also succeed in London.—*Lon. Engineering.*

MONTANA.—DISCOVERY OF COAL.—Among the many rich deposits in this territory, that of coal is creating considerable excitement and is a matter of great importance to the country. A rich bed has been discovered near this town disclosing a vein 30 feet in width—perpendicular depth not known. Col. J. D. Chestnut, of Colorado is engaged in opening this mine, and has run a tunnel 150 feet, taking out very fine bituminous coal, which improves in character as the work is extended. Timber is not plenty, except high up in the mountains, and the question of fuel in this rather frigid temperature had become an important one. It is a settled fact that this coal can be hauled to the various quartz mills and foundries, within a radius of 125 miles, and used with very important advantages over wood, and at much less expense. Quite a quantity of coal stoves are being shipped to the country, and a short time will see it in general use. It has also been tested in the making of gas, and with the rude facilities at hand one pound of coal showed five cubic feet. There is, undoubtedly, vast quantities of this material in the Territory; but at present it can only be used for home consumption. The demands of the future, however, will place these mines second only to the rich and extensive deposits of gold and silver.

[*Tribune.*
Bozeman City, Montana, May 12, 1868.

ONTONAGON HARBOR.—Thus far it has been impossible for the boats to land their freight on the docks. The question is, can the channel be dredged enough to admit the entrance of the large boats? We believe it can, at a

moderate cost. True, there is a wide bar, but will it not warrant the expenditure of a thousand dollars, or even more if necessary, and thus secure an entrance? We understand that the owners of the Norman, Messrs. Leopold and Austrian, are willing to give \$50 toward the expense that would be incurred. Can there a doubt exist, but what every boat plying these waters would contribute equally as much, and some of them double or triple this amount? Furthermore, would not the mining companies of Ontonagon County be justified in paying a hundred dollars each towards this laudable object? Would it not pay them over and over ere the close of navigation?

Laying aside the fact that mining companies and boats would be benefited pecuniarily by landing their freight on the dock, let us consider for a moment the other advantages accruing or being lost to us by this no-harbor arrangement. Boats which have large loads *for this place only*, will come to our town, travel will be cut off and a general stagnation of closed navigation will be seen. Instead of five or ten boats per week, one or two will be the visitors, and then only when obliged to come. In fact we must have a channel, so that the largest or smallest boat can unload at the dock. True, we may have a June freshet, which will clear the bar away, but of this there is no certainty, and if an arrangement like the above can be made, it would be well to give it immediate attention. Shall we have a harbor?—*Lake Superior Miner.*

TO TUNNEL CONTRACTORS

THE Commissioners of the Troy and Greenfield Railroad and Hoosac Tunnel, acting for the State of Massachusetts, invite proposals until the 12th day of August next, for completing said Tunnel, either in separate contracts for three different sections of the work, or in one contract for the whole.

The Tunnel when completed will be $4\frac{3}{4}$ miles long.

From the **East End** the mountain has been penetrated for about one mile, and for a portion of that distance the section has been enlarged to the full width of 24 and height of 20 feet. The enlargement is required to be finished, and working continued westward.

The **Central Shaft** 27 by 15 feet, has been sunk 583 feet, and remains to be sunk 447 feet to grade; and the Tunnel is to be driven in each direction therefrom.

The **West Shaft Workings**, located about half a mile from the west portal, embrace two auxiliary shafts used mainly for pumping and ventilation, and the headings driven in each direction make an aggregate length of about 2300 feet.

The depth of the west shaft to grade is 318 feet.

The **West End**, where arching is required, is already under contract to a point about 930 feet from portal, and from this point a draining drift is to be run eastward to meet workings from west shaft, which will obviate necessity for pumping probably by the close of the present year.

The existing buildings, and the fixed machinery provided by the State for hoisting, pumping, ventilation, and supply of compressed air to the drilling machines, now successfully operating in the rapid advance of the work, will be turned over to the contractors as they are.

A sufficient appropriation has been made by the State for the completion of the whole work.

Ample sureties will be required from parties who may be contracted with, and the Governor and Council reserve the right to reject all offers that may be made.

Plans may be seen, and specifications obtained on application to B. D. FROST, Superintending Engineer, at the Engineers' Office in North Adams, Mass., or to B. H. LATROBE, Consulting Engineer, at his office, 49 Lexington street, Baltimore, Md. Specifications and other information may be had at the State House, in Boston, from TAPPAN WENTWORTH, Commissioner, to whom proposals will be addressed.

ALVAH CROCKER,
TAPPAN WENTWORTH, } Commissioners.
S. W. BOWERMAN,

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	68
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,
Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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CINCINNATI, O

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class for work we are now producing

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

Bills Lading,

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AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as any establishment in the country.

T. F. Randolph,

MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

SURVEYOR'S COMPASSES, TRANSITS, LEVELS, DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

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INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

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117 West Fourth Street, 2 doors east of Race.

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

B. E. SMITH, Pres't, C.&I.C. Railway, Columbus, O.
J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis
Aug. 2, 1866.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

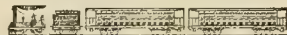
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G.W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.00am.....	7.00pm
" Dayton.....	8.20 ".....	9.15 "
Arrive West Salem.....	1.40pm.....	4.03am
" Leavittsburg.....	4.40 ".....	7.30 "
" Meadville.....	7.05 ".....	10.15 "
" Susquehanna.....	7.30am.....	10.38pm
" Paterson.....	2.33pm.....	6.17am
" New York.....	3.15 ".....	7.00 "
" Boston.....	6.00am.....	5.00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

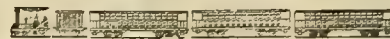
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUC, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front to East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

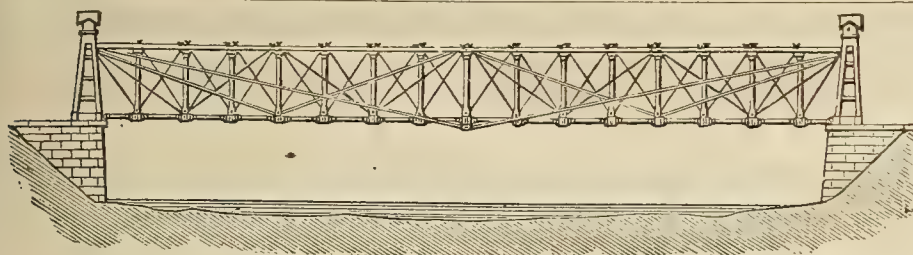
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

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M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

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Philadelphia, Pa.

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21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

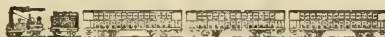
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

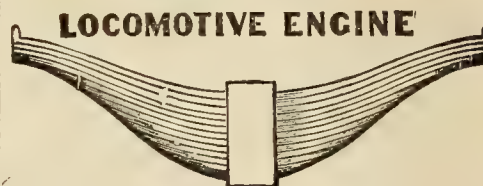
121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE

THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to any extent for the celebrated Wheels, either single or double flat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '87.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ci,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,

CINCINNATI

—AND—

LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,

CAIRO,

CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West, North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.00 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished iron is conducted at our own Works June 9

THE SCHENECTADY

LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continued to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING

LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Supt.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1 1/4 to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from 1/2 inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1 1/4 to 24 inches in diameter, and branches, for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
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Philadelphia, Wilm'gton & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore and Washington at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, { Editors
T. WRIGHTSON.

CINCINNATI:
THURSDAY, JULY 23, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
" column, single insertion.....	5 00
" " per month.....	10 00
" " six months.....	40 00
" " per annum.....	80 00
" page, single insertion.....	15 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.		
	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:45 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:10 P. M.
Bellefontaine and Sandusky.....	6:50 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 P. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

PROPERTY and TAXATION.

The problem of taxation is the most difficult one which has ever arisen among the operations of government. There is not so much difficulty in settling principles, as there is in applying them. We should probably all agree that, 1, Taxes should be levied equally on property; 2, That, where they are from social or moral reasons unequal, they should be laid heaviest on articles of luxury, or those least necessary, and 3, That if any property is exempt it should be the property of the poor and laboring classes. In our day these principles are quite obvious. Our reason assents to them, and we try to apply them; but, plain as they seem to be, they have been among the latest discoveries, or, rather admissions of justice among mankind. They are the clear results of civilization. In arbitrary governments taxation was arbitrary on both persons and property. Even down to within a few years, a poll tax, that is so much per head, has been levied in nearly all civilized states; and, at the present time, both in England and the United States, taxes have been levied on specific kinds of property and classes of persons and occupations. This, however, is the result of extraordinary debts, rather than that of any plan of taxation. Necessity knows no law, and the Government of the United States as well as that of England, has been compelled to look to special objects of taxation, and it is borne by the people from patriotic motives.

But in the Government of the United States there is a complicated machinery which very much embarrasses the question of taxation. There is the General Government, and there are State Governments. Each has the right of taxation, and each exercises it in its own way. Now, if we conceive the General Government and the State Governments both taking the same subjects of taxation, it is evident that that object might be exhausted and taxation be absolutely intolerable. To prevent this grave difficulty, it is necessary the two Governments should tax different objects as far as possible. Most fortunately, the General Government was vested with the power of taxing objects which the State could not tax, and of also laying indirect taxes.

This created a possibility of the two Governments raising sufficient revenue without taxing the same objects. In a great degree this has been done. The ordinary revenue, sufficient for times of peace, was raised by a tariff on imported merchandise; while the State Governments relied almost entirely on lands for taxation. In this there was good reason: The lands and property of a State were entirely within its own jurisdiction; while commercial traffic was not. It was transacted not only beyond the bounds of one State, but very largely with foreign countries. This traffic was only within the jurisdiction of the General Government.

Thus, the objects of taxation by the General and State Governments were materially different and distinguishable. In practice, they have been almost entirely separated, and thus the burdens of the present heavy taxation have been much less felt than they otherwise would be. Let us, for a moment, look at the two methods of taxation as actually practiced by the General and State Governments.

1. The State of Ohio, probably, has as equal and just a system of taxation as any State of the civilized world. It simply aims: 1, To value, as nearly as possible, all the property of the State; and then, 2, To levy an equal per cent. on this whole mass of property, excepting only the right of municipalities to levy a special tax on themselves, for use or charity.

The State levies for all purposes (many of which are special municipal taxes) twenty millions of dollars on all its property. We take from the report of the Commissioner of Statistics some facts which may be interesting, as illustrating the equal principle of taxation. It gives first, the valuation of property during the last thirty years, and then the distribution of taxes. The Commissioner says:

"The total valuation of property, as returned by the Auditor for 1867, was as follows:	
Value of lands.....	\$501,144,584
Value of lots and lands in towns.....	172,849,173
Personal property.....	464,761,022

Total value of taxable prop'ty \$1,138,754,779

This is thirty-two millions greater than in the previous year. In order to show the gradual but certain increase of property in the State, I give below the valuation in successive years:

	Real Estate.	Personal Property.	Total.
1841...	\$100,851,837	\$27,502,820	\$128,354,657
1845...	108,185,714	35,985,725	144,160,469
1850...	341,388,838	98,487,202	439,960,340
1855...	578,858,539	283,118,815	861,977,354
1860...	639,894,311	248,408,290	888,302,601
1867...	673,993,757	464,761,022	1,138,754,779

From 1850 to 1855, the increase was.....	96 per cent.
From 1855 to 1860, the increase was.....	3 "
From 1860 to 1867, the increase was.....	30 "
From 1845 to 1867, for 22 years, the increase was.....	700 "

This is not the result in the variation of currency, for the assessments are made on a cash valuation, and are, in fact, below the actual values. The greatest change was in 1846, when a new mode of assessment was made."

This shows how largely the taxes may be raised in a new state, by the rapid growth of property, without really increasing the burden of the people.

The amount of taxes raised during the six years (from 1862 to 1867 inclusive) which was the period of the war, were:

"The total tax for all purposes during six years, as given in the Auditor's Report, were as follows:

In 1862.....	\$9,652,509
" 1863.....	11,568,834
" 1864.....	16,332,339
" 1865.....	20,546,237
" 1866.....	16,507,867
" 1867.....	20,253,615

The *maximum amount* of money raised was in 1865, but the *maximum amount of local taxation* was in 1867."

In this time the *percentage* was raised from 14.5 to 17.5 mills. Four-fifths of the whole was raised by municipalities, cities, towns and counties for their own local taxes.

In the above table of valuation we see how rapidly a new State, with fertile lands, may grow. From 1818 to 1868, half a century, the population of the State increased five-fold; but the property twenty-fold! Part of this was due, no doubt, to a different and shorter mode of valuation; but after allowing for this, it is very evident that property increased at a much more rapid ratio than people, notwithstanding the immigration has been immense.

2. Let us now look at the taxes levied by the General Government. These, as we have said, are almost entirely levied on the commerce of the country, in other words, are indirect taxes. Let us look at some of the principal subjects of taxation by the General Government, as determined by the new tax bill.

1. Tariff. Different taxes are levied on different species of imported goods, and some are free; but the tariff *averaged* on the whole amount of goods is about 47 per cent.; and the whole amount of foreign goods imported is between three and four hundred millions of dollars. Consequently, the whole amount of money raised in this way, is from \$150,000,000 to \$200,000,000. This is raised in gold in order to meet the interest on the public debt.

2. The next item is the Income tax; but since all sums of \$1,000 and under are excluded, this is a very unequal and rather indeterminate tax. It is supposed that this tax will yield \$35,000,000 per annum, perhaps more.

3. The next tax is on whisky. The new law fixes the tax on whisky at 50 cents per gallon. The average production of whisky in Ohio prior to the war, was about 20,000,000 gallons per annum. Ohio raised about an *eighth* part of the corn produced, and we may, therefore, assume the production of whisky at 160,000,000 gallons, and the revenue from whisky at \$80,000,000, provided it is collected; but, since the reduction of the duty, and the additional tax on stills and liquors, it is quite probable that amount will be collected.

4. We have then the tax on tobacco and cigars, all of which will amount to \$40,000,000.

5. There was the tax on stamps, licenses, &c., amounting on the whole to \$30,000,000.

The aggregate of all these National taxes will amount to something like this:

Tariff	\$160,000,000
Income	35,000,000
Whisky	80,000,000
Tobacco and Cigars	40,000,000
Stamps, Licenses, &c.....	30,000,000
Aggregate.....	\$345,000,000

Something near, or about \$350,000,000 will be raised by the National Government.

If, now, we consider the valuation of the whole property of the United States, which we can arrive at partially by the valuations of the States, and partly by the statistics of 1860, we shall find that the total value of property in this country is about *twenty thousand millions of dollars*. Hence, an annual tax of \$350,000,000 levied on that amount of property is about 17.5 mills, or just the same that the State of Ohio levied on the property of Ohio in 1867.

We perceive, then, that the enormous debts of the country has compelled the General Government to levy a tax on the property of the country equal to the whole tax, local and general, levied by the best State Governments. But, this tax, it must be borne in mind, is no burden at all on the great body of the people; for they do not pay the income tax, and need not pay any of the others unless they choose to consume the articles taxed.

This exhibition of our property and taxes proves not so much that we are heavily taxed, as that it will require the utmost economy to pay off the great National debt, which is really the cause of excessive taxation.

Southern Railroad Connections

THE SOUTHERN END OF THE STRING.

Message of Governor James L. Orr.

The Legislature of South Carolina, now in session, received *messages* from both the retiring and incoming Governors. Last week we gave the remarks of the new Governor, ROBERT K. SCOTT, formerly of Ohio, relative to the Blue Ridge Railroad. We deem the importance of the subject a sufficient apology for giving in this week's issue the following remarks, relative to the same enterprise, from the message of Governor JAMES L. ORR. We think, from the statements and views presented, that Cincinnati need not hesitate to complete her end of the route for fear of not making satisfactory connections when they arrive at Knoxville. There seems to be an evident determination, on the part of South Carolina, to secure the completion of this great avenue, and make available the large amount of means already invested in the Blue Ridge Road.

Gov. ORR, in his message, says:

THE BLUE RIDGE RAILROAD.

I commend, with great earnestness, to your favorable consideration the completion of the

Blue Ridge Railroad. This national highway, intended to connect the great West with the sea, was commenced in South Carolina long before the inception of any of the enterprises in the North and East looking to the same end, and more than thirty years ago enlisted the active energies of the brightest intellects of the State. The financial crash of 1837, however, suspended this great work after it had reached the city of Columbia, but, in 1852 or 1853, it was again revived, a new line of survey was adopted and the work was carried on with redoubled activity. The war alone prevented its completion.

The interest of the State, financially and commercially, in this undertaking can not be over-estimated. The stock which it now owns in the Company amounts to \$1,310,000, and unless the work shall be accomplished, this large sum of money will necessarily become a total loss to the State, in addition to losses which will result from the depreciation of stock in other roads whose prosperity is absolutely dependent upon the success of this undertaking. In round numbers, the whole amount heretofore expended upon the road is \$3,250,000. The road has been completed, and is in running order, from Anderson to Walhalla, a distance of thirty-four miles. Near the latter place it penetrates a spur of the Blue Ridge Mountain by a tunnel a little more than one mile in length, and upon this tunnel two-thirds of the work has already been completed. Much of the grading and masonry in the remaining territory of South Carolina, Georgia, and North Carolina, has also been finished. It is estimated by skillful and competent engineers, that the entire sum requisite to complete the road, put it in running order to Knoxville, and stock it with motive and car power, will not exceed \$3,500,000. From Knoxville to Marysville, there is already nearly completed a section of twenty miles of the road, and it is understood that the Legislature of Tennessee has appropriated a sufficient sum per mile to purchase the iron and erect the bridges necessary to complete its construction to the North Carolina line.

The advantages of this route over the Virginia, Maryland, Pennsylvania, New York and Eastern roads, are most manifest. The trains will not be interfered with to the same extent during the winter season by the heavy freezes which prevail at the North, and this road may therefore be worked more regularly and economically throughout the year. In addition to these advantages a very material saving will be effected in the transportation of all supplies seeking a market upon the seaboard from the West, and upon all goods, passengers and emigrants going from the seaboard to the West. Cincinnati and Louisville are brought one hundred miles nearer the coast by this route than by any other now in operation or which has been projected. The advantage which this road will possess over every other terminating upon the Gulf of Mexico, is manifest. All the supplies carried by these roads to the Gulf ports for foreign markets must necessarily round the capes of Florida, where the navigation is difficult and dangerous, to say nothing of the larger consumption of time in reaching the markets of the world, and the increased cost of transportation upon steam and sailing vessels, by the increased rates of insurance required.

Every consideration, therefore, which can move a people in the promotion of a great enterprise, should operate upon the citizens of South Carolina and induce the speedy completion of the Blue Ridge Railroad. When

finished it becomes the great feeder of every other railroad in the State. It will not only furnish freights for transportation, but in a great degree add to the trade and prosperity of every village, town and city in the Commonwealth.

The present bonded debt of the Company, for which a mortgage has been executed, amounts to about \$230,000. But as the road terminates upon the edge of the mountains, stops short of any connecting lines and is dependent alone upon the production of a small tract of country between Anderson and Walhalla, it has not yet yielded a sufficient revenue to pay even the interest upon the first mortgage bonds. The bond holders have not yet instituted any proceedings to foreclose the mortgage, and it will be a most unwise financial policy for the State to allow it to be done and the road to be sold out for so paltry a sum, when its sale would transfer all that has been done, together with the estate and franchises of the Company, to strangers, and thereby lose to the State and her citizens—to the individual stock-holders and to the city of Charleston—the enormous sum of \$3,225,000. It is, therefore, indispensably necessary that some steps should be taken to redeem this outstanding debt of \$230,000—the first mortgage bonds—which constitute the only existing lien upon the Company. The Legislature authorized the Company to issue bonds under their first mortgage to the amount of one million of dollars; but the Company, exercising a prudent precaution, suspended the work about the commencement of the war, when they had issued, as already stated, only \$230,000. It is highly important that these bonds should be promptly renewed, by substituting bonds guaranteed by the State for the principal and interest, and that steps be taken to resume the work at the earliest practicable day, looking to its completion.

BRIDGING THE OHIO.

The great industrial and commercial interests of the country need all the aid and facilities of transit that can possibly be acquired, either by natural or those artificial channels of trade that are the peculiar feature of the present age—railroads—to meet the wants of our rapidly developing resources. That there should be a seeming conflict between the interests of these two distinct means of locomotion is not at all strange; but upon investigation it will be found to exist more in crude and selfish motives than in any real or fundamental antagonism. There is but one Hudson River on this continent, and there is but one Thames in England;—one in 2,000 years has erected a London, while the other, with its canal feeder, has in a mere fragment of that time created a New York. The time has passed, it is true, and that forever, when commerce and locomotion will depend exclusively on water routes; and, indeed, a fair and honest competition may profitably exist on short parallel lines like the Hudson; but for long transits and heavy rough goods, and more especially where the market for the goods and the current of the streams are in the same direction, like the Ohio, will the water lines always possess a

very decided advantage in the cost of transportation, and a corresponding value to the consumer, and is a very sufficient reason why the destruction of its usefulness should be prevented. That we are not among those who would put stumbling blocks in the pathway of progress, the pages of our Record, for the past sixteen years, will sufficiently indicate; but we can not see the necessity that would impel the sacrifice of the greater for the lesser good, especially when all that is desired can be accomplished without committing the contemplated vandalism. The following Reports, embodied as an Appendix to the Report of the Senate Committee on Post-offices and Post-roads, who had under consideration this subject, from the very eminent Government Engineers, clearly demonstrates this fact, and is of great interest to the People of the entire Ohio Valley.

Views respecting bridges of 500 feet span, (building,) by W. Milnor Roberts, United States Civil Engineer, in charge of the improvements of the Ohio:

There are two principal modes by which railroad bridges of 500 feet span, across the Ohio and other large western rivers, can be constructed so as to be safe and permanent. One, by heavy suspension wire cables, stiffened in connection with wire stays and strong truss frames, on the same general plan adopted in the Niagara bridge of 820 feet span; the other combining the arch and truss, or on the old Wernwag plan of arching the entire bridge and then suspending the roadway or railway by iron rods or wires from this superstructure, or erecting posts and framing the roadway or railway on top. Another plan, that of a system of arches composed of cast iron pipes, combined with wrought iron rods and stays, is practicable.

Bridges of 500 feet span, on either of the above plans, I could plan and construct so that they would stand the test that first-class railroad bridges, over first-class rivers, ought to be subjected to—namely, the frequent passage of the heaviest trains of cars and locomotives at a speed of ten miles an hour; so that for a bridge one-third of a mile, or 1,760 feet long, it should be passed in two minutes. Not that bridges of that span may not be constructed which would admit of passing trains at greater speed, but that in my opinion such a rate of speed is deemed to be, on the whole, advantageous and sufficient, over the Ohio and similar rivers, and would cause no risk to the structures.

Respecting the relative cost of spans of 500 and 300 feet, respectively, something depends on the depth of the stream, the height of the floods, and the elevation of the bridge above the floods at the place of crossing, all of which elements combined would, of course, determine the height and general dimensions of the piers. It is obvious that in the case of one span supplying the space of two, one pier would be saved, the cost of which would be an offset against the additional cost per foot lineal of the single span superstructure. The difference of cost would, therefore, be different in different localities and with differing circumstances. In some cases the extra cost might be doubled on the 500 feet; in other cases considerably less than that. In some cases the additional cost might be trifling, and in conceivable cases the wider span might be the cheaper of the two.

The reason why the wider span costs more per foot lineal for the superstructure is, that the truss, or arch, or their combination, or the cable and its truss and stays, as the case may be, must be larger and higher and stronger. The truss must be higher, the arch stouter, or the cable heavier, &c., proportioned to suit the span.

In crossing the ordinary minor streams of the country whose navigation interests are of comparatively little moment, it is usually a simple matter of calculation whether numerous short spans or a few longer spans with fewer piers shall be adopted. The more piers, the greater the cost of the masonry; the longer the spans, the greater the cost of the superstructure.

Different experts, bridge builders, have somewhat different ratios of prices in connection with different lengths of spans; though all charge more, per foot lineal, as the span is increased. Bridge-builders, in general, in the United States have not yet been called on to erect truss bridges or arch-truss bridges with spans as great as 500 feet. The bridges hitherto constructed with spans of 500 feet, and up to 1,000 feet have been with the cables combined with the truss; and in the most approved, as planned by Mr. Roebling, with stays and stronger truss.

But there can be no doubt that a number of practical American bridge-builders will be ready to put up and guarantee bridges containing the truss and arch principals with spans of 500 feet. Some of them have not hesitated to advertise their ability to do so on their particular plans.

A discussion, either popular or scientific, of the relative merits of all the various plans of bridges now in use would not, in my opinion, further the object of the present investigation. Reasons for and against each will be furnished by the respective parties in interest; each inventor or patentee naturally striving to prove his own the best. The immense number of bridges which the vast extension of the railroad system has already induced, has called forth a great deal of bridge engineering talent in the United States, and led to the introduction of a considerable variety of combinations, all, however, resting upon a few general principles.

In England, some years ago, the iron tubular bridge was regarded by one set of British engineers as the *ne plus ultra* for railroad bridges. They condemned suspension bridges, as they then existed in England, for railroad purposes, which was correct. They were condemned chiefly on the ground that their undulations, arising from the passage of heavy trains, would destroy their integrity. Hence, at that time, the advocates of the heavy, clumsy, unscientific tubular bridges, although much more costly, succeeded in pushing the tubular bridge into favor. American bridge-builders have not adopted the tubular bridge fallacy; yet many persons, who have not paid special attention to the march of improvement in bridge engineering, still refer to suspension bridges as they formerly existed in England and in this country, when they were not adapted to railroad purposes.

The Roebling suspension bridge, as I think it ought to be called, is an essentially different structure, and is a real, practical and reliable railroad bridge. And this has been effected by three things—making the cables heavier, combining them with strong trusses, and adding powerful stays.

A critical investigation of the practical working of suspension bridges of great spans, as perfected by the above-named eminent

bridge-builder, will, in my opinion, satisfy any competent, impartial examiner that they are peculiarly well adapted to railway purposes. Thirteen years continuous use of the Niagara suspension bridge, with heavy trains and locomotives, without injury to the integrity of its supporting parts, has settled this question, I think, unanswerably.

The old English engineering theory of the impossibility of relieving a bridge having the cable principle of undue vibration and hurtful undulatory motion, has been exploded by actual results.

I am so thoroughly satisfied and confident that these results are legitimate and permanent advances in railroad bridge-building, that I will not hesitate to express an opinion to the effect that the day is not distant when all important long-span bridges, whether for railway or other uses, will be constructed so as to include the cable principle, combined with stays and trusses for stiffening.

At the same time it is proper to remark that bridges of 500 feet span can be constructed upon the truss or the arch and truss plans without encountering the limit of strain either of compression or tension that wood and iron, or iron, (or steel,) possess. That is to say, a span of 500 feet is not beyond the point of security, and involves merely engineering knowledge and skill and extra cost.

I was very familiar with the old wooden bridge built by Wernwag, across the Schuylkill, at Philadelphia, called the "Permanent Bridge." It had a span of 340 feet, and was one of the strongest bridge structures in the world. A bridge of 500 feet span on the same general plan could readily be made safe for railroad use.

The Britannia bridge, in England, has spans of 460 feet. The Saltash bridge, in England, has spans of 455 feet. The Rhine bridge, in Cullinburg, in Holland, has spans of 500 feet.

W. MILNOR ROBERTS,
Chief Engineer.

Piers in the Ohio River—the difficulty. By W. Milnor Roberts, United States civil engineer, in charge of improvement of the Ohio River:

The difficulty caused by placing piers in the Ohio River too close to each other, where the bridge crosses the main channel, is peculiar and very serious, owing to the peculiar mode of conducting the coal business, which has already become very large, and must go on increasing without assignable limit. The quantity shipped from Pittsburg alone now exceeds 40,000,000 of bushels, and probably there is nearly as much more from points below, on the main river and its tributaries. Within ten years it is highly probable that the amount of coal shipped along the Ohio River will exceed 200,000,000 bushels, of over 7,000,000 tons, half of which may be from Pittsburg.

The barge system is undoubtedly the only proper and economical way of shipping this heavy, cheap article of prime necessity, and it is very important to the inhabitants of the magnificent valley of the Ohio that this now indispensable item for fuel, and gas, and steam purposes should encounter no unnecessary tax during its transit to the markets on the lower Ohio and the lower Mississippi, as far as New Orleans.

An ordinary tow of twelve barges, with six in front, has a frontage of 140 to 150 feet, and a length, including steamer, of 400 to 450 feet. The piers of the Steubenville bridge are 300 feet apart. In daylight, with an ex-

perienced pilot who understands the river at that particular point, in its different stages, it can be safely passed. When it is passed, however, telegrams are sent back announcing the fact, because it is a constant source of anxiety to the coal merchants of Pittsburg.

Owing to the fact that at different stages of the water the pilots have to maneuver their coal fleets in different ways, on account of the cross currents being different at different heights of the river, the same maneuvering that would put them through safely in one stage would be likely to wreck the fleet in another stage. Hence, a peculiar experience is absolutely necessary in piloting coal fleets between the piers of this bridge. These are the only piers yet finished in the Ohio River on its whole length of one thousand miles of navigation.

[Some of the piers of the new bridge crossing the river at Louisville are up; but I regard the bridge at Louisville as exceptional—where spans of less than 500 feet may be admissible, on account of the fact that a large steamboat canal provides a means of passing the falls at that point, and because coal fleets can only run the falls when the river is well up, and when the main channel can be easily kept. There is no similar locality in the whole thousand miles.]

If the piers of the Steubenville bridge were 500 feet apart, it would certainly take away an additional risk, which is created by the bridge (with a channel way of 300 feet between the piers,) for the coal business. And it is to be considered that other business, mineral and agricultural, is gradually falling into the barge system. There are as yet but two other bridges across the Ohio River. One of these, the Wheeling bridge, has a clear span of 1,020 feet; the other, the bridge at Cincinnati, has a clear span of the entire natural water way at that point, 1,057 feet. Neither of these interferes in the slightest degree with the free and safe passage of coal fleets. The only way in which they affect steamboat navigation is by causing the steamers to have joints in their smoke-stacks so that they can lower them in high water. But this is a minor inconvenience which no steamboat interest now complains of.

Now, if there was never to be but the one bridge in the way of the great coal interest, and other shipping interests of the valleys of the Ohio and Mississippi, probably Congress would not be importuned on the subject; but within ten years there may be ten railroad and other bridges, and within twenty years or thirty years there may be twenty or more bridges over the Ohio, and thus, as the business of the river goes on (or would go on) increasing from year to year, it will have to encounter the obstructions, whatever they may be, to be created by the erection of bridge piers. Insurance will necessarily have to rise with every added pier obstruction, and the price of coal, instead of gradually falling to a minimum for four or five millions of people who will be consumers, will be constantly rising.

By placing the piers over the main channel 500 feet apart, the largest coal fleets may be piloted through much more safely than through 300 feet spans, although it is obvious to any one who will study the case, that on a river which, in a good coal-boat stage, presents a water-way 1,000 feet or more in width, a pier anywhere in the stream where coal boats now pass is an obstruction to navigation.

My employment as Superintending Engineer, in charge of the Ohio River, has rendered it incumbent upon me to understand

the regimen of the stream and the character of the business upon it, both as it exists and as it must be (or ought to be) in the future; and looking to the future I can not but regard the introduction of numerous bridge piers, no matter how placed, as a great evil; and when placed only 300 feet apart, and at many points along this noble stream, it must hereafter be viewed as a terrible oversight on the part of those who are now entrusted with the guardianship of this national highway.

My convictions on this important subject are based on a thorough acquaintance with it. I have no interest whatever but the public interest to subserve, and I do most emphatically give it as my opinion that Congress will do a lasting benefit to the American people by now establishing the limit of space between piers over the main channel of the Ohio River at not less than 500 feet.

On an average half the year there is good coal-boat navigation, with a depth of six to twelve or more feet.

On an average three months to three and a half months will cover the low water season. Eight months of the year, on an average, there is navigation from three to twelve feet or more.

W. MILNOR ROBERTS,
Civil Engineer.

Report of Brevet Major General G. K. Warren of an examination of the bridge across the Ohio at Steubenville, and a draught of provisions to be enacted in a general law to secure the building of bridge piers so as to realize the full width between the piers for the use of navigation, the smallest limit of which is fixed by law.

WASHINGTON, D. C., June 29, 1868.

GENERAL—In obedience to instructions I have examined the location of railroad bridge across the Ohio River at Steubenville. Mr. W. Milnor Roberts, United States Civil Engineer, in charge of improvement of Ohio River, sent a surveying party and an experienced river man, and accompanied me himself from Pittsburg to Steubenville. I reached there on the 22d, and completed my observations on the 23d instant.

The several railroad companies forming the line from Pittsburg, Pennsylvania, to Columbus, Ohio, which crosses at this place, consolidated on the 1st of May last, into one corporation, known as the Pittsburg, Columbus and St. Louis Railroad Company. Judge Thomas L. Jewett was elected President. He freely gave me all the information I inquired for, as did also Mr. W. W. Card, the Superintendent, and Mr. M. J. Becker, the engineer, all residents of Steubenville.

The company had many difficulties at the outset in establishing the right of way for this line across the "Pan-handle" part of Virginia. The right to build the bridge itself was only secured after the act of secession of the State by a Congressional enactment. The bridge was built under the general bridge law approved July 14, 1862. This law required that the span covering the main channel should leave an unobstructed water-way of not less than 300 feet, and "not less than ninety feet above low water, nor less than forty feet above extreme high water." With regard to location the only condition imposed was that "the piers should be parallel with the current as near as practicable."

The conditions imposed were evidently intended to secure a practicable passage-way for vessels of at least three-hundred feet width at all stages of the river, but the result has

been, and will always be, without several other stringent provisions, practically quite different from the intent, if the bridge builders regard merely economy in their own constructions. A statement of my observations at this bridge, and the information given me, fully illustrate this.

The bridge is located in the bend of the Ohio, about one mile above Steubenville. At the time I was there, the river was about four feet above low water, and consequently, below the coal-boat stage. Observations showed the greatest velocity through the channel pier to be, at this stage, four and three-tenths feet per second, which is about two and eight-tenths miles per hour. The general velocity of the current, however, was only about two miles per hour, at this time. At high stages it must reach six miles an hour. The depth of water between the channel piers was about $6\frac{1}{2}$ feet. The water slope, from 400 feet above the bridge to 400 feet below it, falls 22-100 feet. The current passes the bridge at this stage, setting toward the Ohio channel pier, and making an angle with it of 15° . This obliquity of itself effects a practical contraction of the channel-way of about ten feet.

The channel way is still further contracted by a rip-rap thrown around the base of the piers, amounting to about twenty-feet on all sides, so that the practical channel-way left is only 250 feet instead of 300 feet.

This rip-rap rose at this time two feet above the water, and as the coal-boats draw seven feet, there would have to be a rise of nine feet above the stage at that time, or thirteen feet above low water, before such boats could pass alongside of the pier.

The location of the bridge, as before said, is in a bend of the river; and though at the present time, the current sets toward the Ohio shore, which it does through the influence of a middle ground bar, as the river rises the influence of the bar is less felt, and the current sets more and more into the bend and on the Virginia shore, and at good coal-boat stage makes an angle impinging against the piers toward that side of the river. The current thus has a play through an angle of full thirty degrees in different stages at this site. It is readily to be seen this must require, on the part of the pilot, accurate knowledge of the current at each stage, so as to enable him to make his proper calculations. None, I believe, attempt to pass it in the night with tows.

The currents of the river in bends generally flow on curved lines, so that the boat has a swinging motion as she descends, which of itself requires more room for the boat than where the river is straight, and this is another objection to locating bridges in the bends.

In the towing of coal boats another great objection to the location of a bridge in a bend arises from the necessity there is for the tug-boat to throw herself and tow obliquely across the stream and back her wheels to keep out from the bank, toward which the surface current is setting; she is thus unable to pass without danger a bridge in the bend that does not permit, by its width of taking the oblique position. The Steubenville bridge, on account of its inadequate width, does not admit of this, and can be passed only by the steam-boat going ahead to get steerage way, thus unavoidably adding her own force to the velocity of the current to increase the shock against the piers or rip-raps, should the boats unfortunately strike them. I am informed, on the best authority, that, "in passing those piers they always have hands out on the outer range of boats, with axes ready, on the in-

stant of striking, to cut away the striking boat to save the fleet." To make it still worse for the location of this bridge, there is one of the most sudden bends of the Ohio about one and a half mile above it, in which the tow-boat has to exert her backing power in the oblique position to the fullest extent, and consequently, presents herself near the bridge in the most unfavorable position for passing it by going ahead. The provisions I make in the sections proposed at the end of this report for a new bridge law practically prohibits the location of bridges in bends.

Every defect which this location has for navigation might have been avoided by a practicable location about one and a half miles below. There a straight reach and deep pool is found, and a current which does not change its direction at different stages. But it has the disadvantages to the railroad company, that the approaches on the Virginia side would have required some expensive excavation to avoid a short curve, and the pier foundations must have been built where the water is ten feet deep at lowest stages—comparatively trifling objections, at the most. Such foundations as the present bridge has should never be used for any important superstructure, and proper foundations could have been built in the proper location as cheaply as they could where the bridge is located.

The following diagram* and description exhibit these foundations in a clear manner.

This diagram represents a section across the east channel pier at the Steubenville bridge. At the base it is about twenty-six by fifty feet. The foundation consists of three courses of pine timber one foot thick, decked over with four-inch plank. All the other piers have under them four thicknesses of timber. The natural bed was excavated so that the lowest water would always cover this deck a foot deep. The stone is laid on this in courses two feet thick. The timber projects one foot beyond the masonry, which is, in the pier, about twenty-four feet across at the base, with a batter of one-half inch per foot rise. The rip-rap protecting the timber platform extends out about twenty feet on each side, and rises up about six feet above low water at the piers. Nothing but the rip-rap preserves the piers from destruction, and one of the short piers has deflected about two and one-half feet from the perpendicular. The bed is composed of coarse gravel and small and large rounded boulders.

The channel piers are 92 feet above low water and 47 feet above high water, and 300 feet apart in the clear. The other piers are about 66 7 10 feet above low water. All the spans, of which there are six, beside the main span, exceed 200 feet in the clear. The bridge was built by the Keystone Bridge Company, at Pittsburg, after designs by Mr. J. H. Linville. It has wrought iron for the suspension rods and bottom chord, and cast-iron tubes for the uprights and top chord. It is nearly horizontal. The main trusses are about 25 feet high. The track is laid on the bottom chord of the main span, and on the top chord of all the others. It is a beautiful bridge, and with a substitution of wrought iron for the cast iron parts, would be a safe form of structure for longer spans.

The defects of this bridge location, considered from the navigation point of view, which bridge was built under the special provisions of an act of Congress as stringent as any yet enacted, show how insufficient those provisions are for the protection of navigation. The Rock Island and Clinton bridges, on the Mississippi, are much worse than this,

but these were built without any authority from the General Government.

The fixing of a proper width of practicable channel way to be left between piers so as to not seriously obstruct navigation, and, at the same time, not to impose any unnecessarily onerous and impracticable conditions on railroads, is a problem of great difficulty, on account of the variety of elements which must be considered. It is not easy to determine what the requirements of navigation may yet be. But the tendency is to demand increased width, and, fortunately, engineering skill keeps pace with these requirements.

The improvements which have taken place in this country in making permanent bridge foundations and extending the length of the spans, within three years, have rendered almost any requisite span feasible of accomplishment in almost any needed locality.

By the wire suspension plan, railroad spans can readily be made 800 to 1,000 feet, and a railroad bridge is now constructed and in operation on the lattice plan, with steel top and bottom members, 492 feet clear span.

I think a draw bridge never should be allowed where the approaches render a high span practicable. Approaches are more difficult on the Mississippi River than on the Ohio, and for this reason a different requirement should be made for the two streams. The difficulty of a boat passing through a given space increases with the velocity of the current, so that for this reason there should be a difference made for different rivers, and for different locations on the same stream.

A given amount of difficulty is more and more felt as the number of vessels passing is greater, and in rivers the size of vessels generally increases with their number, because both are greater the lower you descend the river, and the more commerce becomes tributary to it. On this account a greater requirement should be exacted on the lower Mississippi than on the upper Mississippi.

Whatever may be the least limit adopted for the width of the passage way for boats, I would recommend that the following provisions be required, in all cases, to secure it. I base these not only on my examination of the Steubenville bridge, but upon that of many other bridges constructed over the navigable rivers of the West:

Letter of G. K. Warren, Major of Engineers, &c., to Hon. Alex. Ramsey, chairman Committee on Post-offices and Post-roads, giving an estimate of the cost of a bridge 1,700 feet long, with continuous spans, one of them 500 feet in the clear, two of them 300 feet in the clear:

WASHINGTON, D. C., July 8, 1868.

STR—The extent of the labor of collecting material in relation to bridging the Mississippi River, has been too great to enable me as yet to present my complete report upon the subject. The low and wide bottom lands of the Mississippi River present obstacles to the adoption there, as a general rule, of the high and continuous spans appropriate to the banks of the Ohio.

My investigations satisfy me that railroad bridge spans can be built of 500 or even 600 feet length, without resorting to the suspension plan, against which, however, I think only unreasonable objections exist. In the last few years a great increase in our knowledge and means of building piers and long spans enables us to build them now with a much longer span and less expense than those built before.

Although it is difficult to present an estimate for a bridge until all the circumstances

of its location are known, I offer the following for one of an assumed length, which can, by a little alteration be applied to any other. It is not a suspension bridge.

The bridge to have an iron superstructure covering a center-span of 500 feet in the clear, and two side spans of 300 feet each in the clear at low water, making, with the spaces occupied by the piers, 1,180 feet of superstructure, calculated for transitory loads of 3,000 pounds per lineal foot, and with single track railway put up and ready for travel, exclusive of masonry..... \$500,000

For four piers supporting the above, each 18 by 24 feet average section, and standing from 44 feet below low water to 100 feet above low water, making for each pier, 2,304 cubic yards of masonry, which, at \$15 per cubic yard, would cost \$34,560, or for the four piers say..... \$140,000

Supposing the bridge to replace the present Steubenville bridge of about 1,700 feet length we should require 520 feet of the bridge additional; making this at \$300 per lineal foot, (which exceeds the estimate for the Louisville iron bridge), we have..... \$156,000

Total..... \$796,000

By the substitution of wood in all the parts admitting of it this bridge might be built for \$450,000.

I am informed the present Steubenville bridge cost over one million dollars.

A further reduction might be made in the foregoing estimate if the steamboat men would consent to the bridges being placed forty feet instead of fifty feet above extreme high water which they might do by providing suitable means of lowering their chimneys.

This reduction of ten feet in the height of the bridges would much reduce the expense of making the approaches to the bridge, often the most serious part of the difficulty in bridging at a locality where the bridge is needed.

Yours respectfully,

G. K. WARREN,

Major of Engineers, &c.

ARIZONA.—The officers and soldiers north of the Gila are doing their best to secure peace and security to our people, and we hope Government will back them up in the good work. The recent scout made by General Devine and command accomplished great good for the country, as will be seen ere long. Officers, guides and soldiers have learned a great deal in regard to the home of the Apaches, and it is the intention of the Commanding General to turn it to good advantage. A post will no doubt be established, this summer, on the San Carlos, a road will be made from Camp Lincoln to it, white settlers will follow the troops, and another wave of civilization will roll eastward into the delightful country now cursed by the Apache. The soldiers are perfectly delighted with the country visited by them, and say that it surpasses in beauty, even this. Those of them who last year, while scouting in the Wallapai mountains, came near dying of thirst, pronounce Eastern Arizona a paradise, with timber, water and grass in abundance, Mr. Ed Peck, chief guide for the expedition, informs us that he saw on the trip some very good looking gold country, and some of the soldiers say they found gold.—*Arizona Miner*.

Grand Rapids and Indiana Railroad.

We learn from the *Detroit Advertiser and Tribune*, that an annual meeting for the election of Directors of the Grand Rapids & Indiana Railroad has just been held at Sturgis, Mich., which resulted in the selection of the following gentlemen to serve for the ensuing year: J. K. Edgerton and Pliny Hoagland, of Fort Wayne; James R. Bunyan, of Kendallville; J. G. Wait and Richard Wait, of Sturgis; J. A. Walter and Israel Kellogg, of Kalamazoo; Geo. H. White, of Grand Rapids, and Mancel Talcott, of Chicago.

J. K. Edgerton, was subsequently elected President; J. W. Goodwin, Secretary; S. T. Haund, Treasurer, and J. K. Edgerton J. A. Walter, J. G. Wait, and P. Hoagland, Executive Committee.

There was a good deal of interest manifested in the success of the enterprise, and a full determination to push it forward to completion.

We further learn that the company have now at Detroit the iron for fifty miles of road, and they expect, by the close of the next season, to have two hundred miles of road in running order. It will be remembered that this company have made arrangements, whereby the Pittsburg, Fort Wayne & Chicago Railway furnish the necessary means to complete the line north, and the Cincinnati, Hamilton & Dayton Railroad are to finish the road south. When finished this will give a good line from Cincinnati through the great lumber region of the west side of Michigan to the Straits of Mackinaw, and will open a valuable trade to our city.

We observe by the Report of Congressional proceedings in the Globe of the 20th, that Senator Howard reported a bill granting lands to the Northern Michigan Railroad Co., to aid in the construction of a railroad through Government lands in Michigan, extending from Detroit via Bay City to Mackinaw and Superior City, at the head of Lake Superior, and there connecting with the contemplated Northern Pacific Railroad.

COMPOSITION FOR ELECTROTYPE MOLDS.—The use of gutt-percha for electrotpe molds presents many inconveniences when the medallion or plate to be copied is large. M. Kness has therefore invented a composition for the mold which may be used with articles of any dimensions. It is made by first melting together 6 lbs. of white wax, 2 lbs. of asphalt, 2 lbs. of stearine, and 1 lb. of suet. When a homogeneous paste is obtained, he stirs in enough lamp-black to give the whole a deep black color, and a little very fine plaster of Paris, to give it more body and prevent it from sticking to the model. When used the pattern must be smeared with a little oil, and a composition poured on at the lowest temperature that it will run well, for if too hot it will adhere. After cooling it detaches very easily, and forms a hard mold not at all brittle nor likely to get out of shape.

RAILWAY CONNECTIONS AT LOUISVILLE.—The question of connecting the tracks of the Louisville & Nashville, and the Louisville & Cincinnati Railway, at Louisville, is still unsettled. Committees representing these roads, and the citizens and Council of Louisville, were in session on Monday. The *Democrat's* report says:

"Mr. Dent, Chairman of the Committee of the Lower Board, stated briefly that the committee had had no meeting by which they had arrived at any conclusion as to the proper recommendation of the General Council. But as a citizen, as well as a member of that body, Colonel Dent desired to express his opinion that the General Council would not entertain favorably any proposition for a connection within the corporate limits, unless the gauge in the Louisville, Lexington & Cincinnati road was changed from the present 5 feet to 4 feet 8½ inches. With such a change he believed a connection could be had on favorable terms. Messrs. Fox, Brobston, O'Conner, and Dr. Stealey, concurring with Colonel Dent, it was the decided sense of the meeting, and made a request of Messrs. Dudley and Speed, that they would lay the proposition for a change of gauge before the directors of the Louisville, Lexington & Cincinnati roads. To this request the gentlemen acceded, and the various committees joined in the unanimous hope and belief that the whole matter would be satisfactorily arranged to the interests of all parties.

HAIR-CUTTING BY MACHINERY.—Hair-cutting by machinery is now an accomplished fact, so far as horses and oxen are concerned, and it seems to us by no means impossible in the case of the human head. M. Nabat has invented a mechanical razor, which, in principle, is something like a lawn-mower. A helix, with steel blades tangent to a comb, is made to rotate by means of a flexible chain worked by a lever. One man works the lever, while the "operator" promenades the comb over the body of the animal, regulating the length of hair to be left by the inclination of the comb. It is said that horses and other beasts enjoy being clipped by machinery. It, however, remains to be seen whether humanity will.—*Mechanics' Magazine*.

The contemplated air-line hence to Lansing, Michigan, by way of the tunnel route through Dayton, has acquired more significance since the new bridge at Newport, Kentucky, has become a fact for future consideration. The road tapping the Ohio at Newport will run through the Deer Creek Valley, and taking Dayton, Greenville and Van Wert, Ohio, reach Lansing, Michigan, which a glance at any railroad map will show to be as nearly an air line route as any in existence.—*Cin. Com.*

The receipts of the Western Union Railroad Company, for the week ending July 7:

	1868.	1867.	Inc.	Dec.
Freight.....	\$6,634 21	\$8,016 36	.....	\$1,422 16
Passengers ...	5,473 00	4 3 0 25	1,102 75	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....

Totals..... \$12,832 21 \$13,121 61 \$1,132 75 \$1,422 16

Receipts from January 1 to July 7:

1868.....	\$335 881 56
1867.....	275 3 9 60

Increase..... \$60,501 96

The Constitution Amended.

WASHINGTON, July 20.—The following has been promulgated by the Secretary of State:

WILLIAM H. SEWARD, *Secretary of State of the United States, to all whom these presents may come, greeting:*

Whereas, The Congress of the United States on or about the sixteenth day of June in the year one thousand eight hundred and sixty-eight, passed a resolution which is in the words and figures following to wit:

Joint resolution proposing an amendment to the Constitution of the United States.

Be it Resolved, by the Senate and House of Representatives of the United States of America in Congress assembled, two-thirds of both Houses concurring, That the following article be proposed to the legislatures of the several States as an amendment to the Constitution of the United States, which, when ratified by three-fourths of said legislatures, shall be valid as part of the Constitution, namely:

ARTICLE XIV.—Section I. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privilege of immunities of citizens of the United States; nor shall any State deprive a person of life, liberty or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

SEC. 2. Representatives shall be appointed among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed; but when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the executive and judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, (being 21 years of age and citizens of the United States,) or in any way abridged except for participation in rebellion or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens 21 years of age in said State.

SEC. 3. No person shall be a Senator or Representative in Congress, or Elector, or President, or Vice-President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath as a member of Congress, or as an officer of the United States, or as a member of any State Legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof; but Congress may, by a vote of two-thirds of each House, remove such disability.

SEC. 4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties, for services in suppressing insurrection or rebellion, shall not be questioned; but neither the United States or any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave. But all such debts, obligations, and claims shall be held illegal and void.

SEC. 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of the article

(Signed) SCHUYLER COLFAX,
Speaker of the House of Representatives.
LAFAYETTE S. FOSTER,
President of the Senate *pro tempore*.
(Attest) EDWARD McPHERSON,
Clerk of the House of Representatives.
J. W. FORNEY,
Secretary of the Senate.

And Whereas, By the second section of the act of Congress, approved the 20th of April, one thousand eight hundred and eighteen, entitled "an act to provide for the publication of the laws of the United States, and for other purposes," it is made the duty of the Secretary of State forthwith to cause any amendment to the Constitution of the United States which has been adopted according to the provisions of the said Constitution, to be published in the newspapers authorized to promulgate the laws, with his certificate specifying the States by which the same may have been adopted, and that the same has become valid to all intents and purposes as a part of the Constitution of the United States; and

Whereas, Neither the act just quoted from nor any other law expressly or by conclusive implication authorizes the Secretary of State to determine and decide doubtful questions as to the authenticity of the organization of State Legislatures or as to the power of any State Legislature to recall a previous act or resolution of ratification of any amendment proposed to the Constitution; and

Whereas, It appears from official documents on file in this Department that the amendment to the Constitution of the United States proposed as aforesaid has been ratified by the Legislatures of the States of Connecticut, New Hampshire, Tennessee, New Jersey, Oregon, Vermont, New York, Ohio, Illinois, West Virginia, Kansas, Maine, Nevada, Missouri, Indiana, Minnesota, Rhode Island, Wisconsin, Pennsylvania, Michigan, Massachusetts, Nebraska, and Iowa; and

Whereas, It further appears from documents on file in this Department, that the amendment to the Constitution of the United States, proposed as aforesaid, has also been ratified by the newly constituted and newly established bodies avowing themselves to be, and acting as the Legislatures respectively of the States of Arkansas, Florida, North Carolina, Louisiana, South Carolina, and Alabama; and

Whereas, It further appears from official documents on file in this Department, that the Legislatures of two of the States first above enumerated, to wit: Ohio and New Jersey, have since passed resolutions respectively, withdrawing the consent of each of said States to the aforesaid amendment; and

Whereas, It is deemed a matter of doubt and uncertainty whether such resolutions are not irregular and invalid, and therefore, ineffectual for withdrawing the consent of the said two States, or either of them, to the aforesaid amendment; and

Whereas, The whole number of States in the United States is thirty-seven, to wit: New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Vermont, Kentucky, Tennessee, Ohio, Louisiana, Indiana, Mississippi, Illinois, Alabama, Maine, Missouri, Arkansas, Michigan, Florida, Texas, Iowa, Wisconsin, Minnesota, California, Oregon, Kansas, West Virginia, Nevada, and Nebraska;

And Whereas, The twenty three States first herein before named whose Legislatures have ratified the said proposed amendment and the six States next thereafter named as having ratified the said proposed amendment by newly constituted and established legislative bodies together constitute three-fourths of the whole numbers of States in the United States.

Now, therefore, be it known, That I, William H. Seward, Secretary of State of the United States, by virtue and in pursuance of the second section of the act of Congress, approved the 20th day of April, 1818, hereinbefore cited, do hereby certify that if the resolutions of the Legislatures of Ohio and New Jersey, ratifying the aforesaid amendment, are to be deemed as remaining of full force and effect, notwithstanding the subsequent resolutions of the Legislatures of these States, which purport to withdraw the consent of said States from such ratification, then the aforesaid amendment has been ratified in the manner hereinbefore mentioned, and so as to become valid to all intents and purposes as a part of the Constitution of the United States.

In testimony whereof I have hereunto set my hand, and caused the seal of the Department of State to be affixed.

Done at the City of Washington, this 20th day of July, in the year of our Lord one thousand eight hundred and sixty-eight, and of the Independence of the United States of America the ninety-third.

WILLIAM H. SEWARD, Secretary of State.

Shall we have a Crisis?

There are a few facts connected with our foreign trade and with the specie to which we think the importing interest has not yet attached due importance. For the last five years we have been accustomed to send to Europe a large amount of Government bonds in payment for our imports. It is very generally estimated among those most familiar with the foreign bond market that, within that period, we have sent about \$600,000,000 of Governments abroad; which have realized probably \$361,000,000 in gold. At this rate, we have had an average annual deficiency of \$72,000,000 gold value in our exports of produce and specie, which has been made up by these remittances of securities. It is very clear that now we have reached a point when Europe wants but little more of our securities; this being a fact to which foreign bankers will generally testify.

Having thus lost one of our most important means of payment for imports, a radical change is required in the course of our foreign trade to meet the new position of things. But what is being done? We are not proportionately increasing our exports of produce. On the contrary, the whole value of the produce exports of the United States, for the first four months of the year, were \$24,400,000 less than for the same period last year. We have not proportionately diminished our imports, for the imports at this port for the first six months of the year are within \$9,000,000 of the same period of 1867. We have, however, enormously increased our exports of gold, the shipments of specie from New York, from January 1st to the close of last week having reached the unprecedented total of \$55,000,000, being at the rate of \$100,000,000 per annum.

This large export of specie plainly shows the direction in which we are drifting. Our

current imports are liberal and the receipts for the fall trade are likely to be close upon those of 1867; while our exports of produce are falling materially below those of last year. A large deficiency is thus accruing, which can only be bridged by the remittance of unusual amounts of gold; and yet we have rarely been in a more unfavorable position for sending heavy amounts of specie out of the country. The Secretary of the Treasury has publicly stated that, after paying the Alaska appropriation, there will remain in the Treasury only \$37,000,000 of gold for future use. Do not these facts indicate that we are drifting into a crisis in our foreign trade? It would seem inevitable that before the close of the year, we must ship an amount of gold which will reduce the stock of coin below any point witnessed for many years past.—*N. Y. Economist*, July 18.

TIN in Missouri is attracting the attention of savans and capitalists. A St. Louis correspondent writes that a few months since, 10,000 acres of the lands were entered at \$1.25 per acre. A company of that city have spent \$75,000 in sinking shafts and putting up machinery. The *St. Louis Dispatch* states that Phelps, Dodge & Co., of New York, importers of tin, recently paid \$50,000 for 1,200 acres. Our informant is sanguine in the belief that the United States will soon export tin, as Missouri has "mountains" of ten per cent. ore. In the same locality, tin, copper, lead, silver, gold, and nickel are said to be found.

TO TUNNEL CONTRACTORS

THE Commissioners of the Troy and Greenfield Railroad and Hoosac Tunnel, acting for the State of Massachusetts, invite proposals until the 12th day of August next, for completing said Tunnel, either in separate contracts for three different sections of the work, or in one contract for the whole.

The Tunnel when completed will be $4\frac{3}{4}$ miles long.

From the **East End** the mountain has been penetrated for about one mile, and for a portion of that distance the section has been enlarged to the full width of 24 and height of 20 feet. The enlargement is required to be finished and working continued westward.

The **Central Shaft** 27 by 15 feet, has been sunk 583 feet, and remains to be sunk 447 feet to grade; and the Tunnel is to be driven in each direction therefrom.

The **West Shaft Workings**, located about half a mile from the west portal, embrace two auxiliary shafts used mainly for pumping and ventilation, and the headings driven in each direction make an aggregate length of about 2300 feet.

The depth of the west shaft to grade is 318 feet.

The **West End**, where arching is required, is already under contract to a point about 930 feet from portal, and from this point a draining drift is to be run eastward to meet workings from west shaft, which will obviate necessity for pumping probably by the close of the present year.

The existing buildings, and the fixed machinery provided by the State for hoisting, pumping, ventilation, and supply of compressed air to the drilling machines, now successfully operating in the rapid advance of the work, will be turned over to the contractors as they are.

A sufficient appropriation has been made by the State for the completion of the whole work.

Ample sureties will be required from parties who may be contracted with, and the Governor and Council reserve the right to reject all offers that may be made.

Plans may be seen, and specifications obtained on application to B. D. FROST, Superintending Engineer, at the Engineers' Office in North Adams, Mass., or to B. H. LATROBE, Consulting Engineer, at his office, 49 Lexington street, Baltimore, Md. Specifications and other information may be had at the State House, in Boston, from TAPPAN WENTWORTH, Commissioner, to whom proposals will be addressed.

ALVAH CROCKER,
T. PAN WENTWORTH, } Commissioners.
S. W. BOWEEMAN,

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT'S

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

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All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

WRIGHTSON & CO.,

Railroad Printers

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CINCINNATI, O

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

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T. F. Randolph,

MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

SURVEYOR'S COMPASSES, TRANSITS, LEVELS, DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

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BOOKSELLERS AND STATIONERS,

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Keep always in stock a full assortment of

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PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

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WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

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Cambridge, Ind.

REFERENCES.

B. E. SMITH, Pres't, C.&I.C. Railway, Columbus, O.
J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R.R., Indianapolis, Aug. 2, 1866.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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Oil Lands

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Kentucky & Tennessee,

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THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—
Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
Leavittsburg.....	4,40 ".....	7,30 "
Meadville.....	7,05 ".....	10,15 "
Susquehanna.....	7,30am.....	10,38pm
Paterson.....	2,33pm.....	6,17am
New York.....	3,15 ".....	7,00 "
Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts. Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

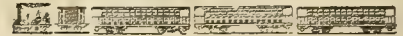
FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at the northeast corner of Broadway and Front streets, and at No. 40 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—
NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines. State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

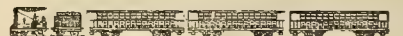
2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

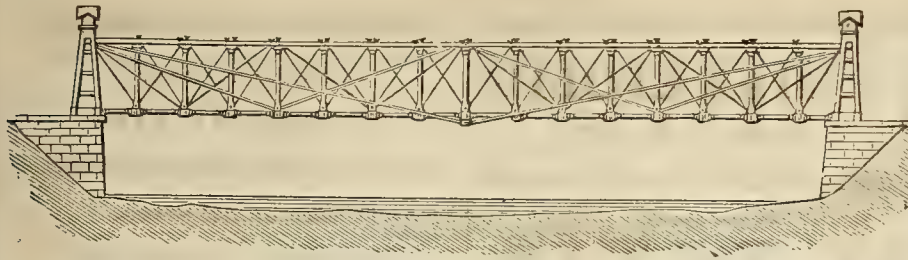
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

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Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order, Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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Also engraved in a style corresponding in excellence with that of Bank Notes,

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W. P. SHINN General Freight Agent
myll Pittsburgh, Pa.

CUMBERLAND COUNTY

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WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

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CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION!

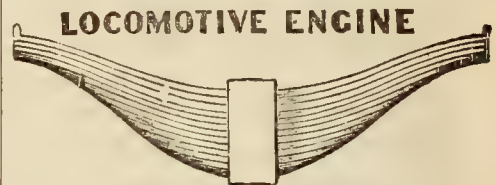
68 Broadway, New York,

121 West Front Street, Cincinnati.

350 Main Street, Memphis, Tenn.

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RAILWAY SPRINGS. FREIGHT



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

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Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
 Baltimore.*

L. WILSON, Master of Transportation.
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 O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Rich- mond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots. East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

JANUARY 5th, 1868.

*Cincinnati to St. Louis Without
 Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 40 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	8 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
 J. W. CONLOGUE,
 General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North-west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
 Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

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AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CON-
 stantly on hand, painted, and ready for shipment,
 with instructions for applying them.

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This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

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Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING**LOCOMOTIVE ENGINES**

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

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Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same. &c.,
Gas Works Castings, etc., etc.

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CHAS. WHEELER

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HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY****TRAINS LEAVE PHILADELPHIA FOR THE SOUTH DAILY**

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON, }

CINCINNATI:
THURSDAY, JULY 30, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
“ “ per month..... 3 00
“ “ six months..... 12 00
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“ “ per month..... 10 00
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“ “ per annum..... 200 00
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WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.
DEPART. ARRIVE.
Morning Express 7:00 P. M. 6:10 A. M.
Night Express..... 6:00 A. M. 6:00 P. M.

LITTLE MIAMI.

Lightning Express..... 7:00 A. M. 4:35 P. M.
Express Mail..... 8:30 A. M.
Columbus Accommodation..... 3:50 P. M. 10:20 A. M.
Morrow Accommodation..... 5:20 P. M. 8:00 A. M.
Lightning Express..... 8:00 P. M. 10:35 P. M.
Night Express..... 6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express..... 7:00 A. M. 7:25 P. M.
Express Mail..... 9:30 A. M. 5:25 A. M.
New York Express..... 8:00 P. M. 8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City

Night Express..... 12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail..... 7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail..... 7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation..... 3:55 P. M. 10:00 A. M.
Loveland Accommodation..... 5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada..... 6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada..... 6:30 P. M. 6:10 A. M.
Richmond and Chicago Mail..... 7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp..... 5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City..... 6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City..... 5:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago..... 3:00 P. M. 5:30 P. M.
Bellefontaine and Sandusky..... 6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky..... 3:00 P. M. 10:30 A. M.
Hamilton Accommodation..... 6:30 P. M. 7:55 A. M.
Dayton Accommodation..... 6:30 P. M. 10:30 A. M.
Dayton Express..... 5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express..... 7:20 A. M. 7:05 P. M.
Night Express..... 5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail..... 6:15 A. M. 10:20 A. M.
Connersville, Cambridge City and Indianapolis Express..... 5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express..... 7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville..... 7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex. 5:45 P. M. 6:10 A. M.
Louisville Special Train..... 3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail..... 7:00 A. M. 4:10 P. M.
Caboose Accommodation..... 3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.

Express..... 6:00 A. M. 6:00 P. M.
Lexington Express..... 2:00 P. M. 10:50 A. M.
Falmouth Accommodation..... 6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.

Express Mail..... 7:00 A. M. 6:15 A. M.
Fast Express..... 8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express..... 8:00 P. M. 10:35 A. M.

SOUTHERN RAILROAD.

Among the most important questions that several of the counties of Kentucky will be called upon to decide next Monday, will be, whether they will have a railroad connection with Cincinnati as well as with the great Southern system of railroads. In the expenditure of large sums of money for any great public work, by private capitalists, the first and most important inquiry is, will it pay? How and who? Now, no one will question the fact that it will pay the owners of the land through which the road may be projected by facilitating their access to markets, enabling them to obtain an increased price for their products, and their supplies of manufactured goods and other stores at a greatly reduced cost of transportation. Hence, it is seen that the producer receives a double benefit by the construction of means of transit through or near his lands. The value of the farms thus brought into close proximity to market correspondingly increase. In nine cases out of ten this amounts to more than quadruple the entire cost of the improvement. The real question at issue at the present day is not distance, but the *time* required, and the *cost* of making the transit; or, in other words, if the farmer has one thousand bushels of wheat to sell, and it costs thirty cents a bushel to take it to market, how much would HE make if by means of a railroad near his farm he could reach the same market at a cost of ten cents a bushel. There is no question but that any country, devoid of modern locomotion, can better afford to construct and give away the most valuable lines of railroad than to do without them. It can not admit of a moment's hesitation, whether it will be to the interest of property holders to contribute a little of the benefits that will accrue to them, in order to secure and satisfy those whom they expect to furnish the means for the completion of the work.

We have great confidence in the intelligence of the people of Kentucky, on the line of the proposed route between Lexington and the Tennessee Line, that they will not hesitate to assess the several amounts assigned to their respective counties to aid in the construction of this great and much needed work. If the road was now made they would *save* in the cost of the transportation, on the bountiful harvest of the present year alone, more than sufficient to make up the sum proposed to be contributed.

The question will arise, and very properly, what of Cincinnati; will she "hold up her end of the string?" We, unhesitatingly, say yes! The public sentiment of this community is fully alive to the importance of the enterprise, and needs but this substantial evidence of the intention, on the part of those who are fully as much interested, to co-operate with them to

ensure its speedy construction. If the vote now to be given is what we confidently believe it will be, then all obstacles will be removed, and a united effort made to accomplish a result so long cherished.

Mineral Products--Labor.

About thirty tons of copper ore were delivered in New York, a few days ago, without transfer of cars, from Omaha to New York in twelve days; this shipment being brought from near the mines of the Boston and Colorado Mining Company, in Colorado, to Omaha, by the Pacific road. It has already been transhipped from New York to Wales, where it will be made to yield about eighty or eighty-five per cent. of pure copper.

This is a source for business on which the railroads to the Pacific can draw *ad libitum*. Especially will this be the case when the lateral branches that necessity will soon indicate and construct. It will become like the coal traffic, on the Reading road—a regular business—not only in copper ores, but in the ores of silver, lead and gold. There are mines south of the contemplated route of the Kansas Pacific road in New Mexico, the ores of which are nearly pure, inexhaustible in quantity, easily treated, and the product of which has been carted 1,200 miles in wagons to the Texas coast, and sold in the New York market at a profit. This is but one of dozens that we know of that would be developed by the construction of this railroad across the continent. Here is where benefits will accrue to the working man—the mechanic—by the construction of railroads to the Pacific it will furnish the raw material, as well as a market for the products of *his* industry. Mining is a business of itself—smelting and metallurgy is another, that can be more profitably conducted as a general thing at other localities than at the mines, where food and fuel are generally costly. Besides, many of the minerals, as nature furnishes them, are very intricately compounded, requiring more science and skill in their separation than is always to be found in the mining districts; hence it is that even the slag, or waste, of our rude smelting works can often be shipped to Swansea at a good profit. All these vast interests and resources, that would furnish remunerative labor in a thousand forms,—that would add to the merry laugh of women and children, the joyous sounds of the hammer and the mill, and would make us the arbiters of the metal markets of the world—are dormant for the lack of transportation and protection from the organized bands of roving robbers,—the treacherous and murdering Apaches.

The sophistry that is used by a few petty-fogging politicians against Government aid in the construction of the vast avenues for commerce—these highways for the people,—through the public domain,—is but throwing sand in the eyes of the working man. It is merely reducing the field and curtailing the

resources of labor,—cramping enterprise, and cheating honest toil of its just reward. Who, among mechanics, wants a farm in Montana, Idaho, Dacotah, Wyoming, Colorado, Arizona, New Mexico, or Alaska? The old style of transit with ox teams would require six months to get there, the risk of health and the scalp, and cost a small fortune, enough to buy a good farm in the civilized portion of our country. It would be just as sensible to talk of his emigrating to the moon,—he don't want to go. What the mechanic wants,—and it is the mechanic that never wants farm land, that is always appealed to because they are organized, and their votes, in mass, count rapidly—is an abundant supply of raw material, a ready market for the results of his skill and labor, and an abundance of cheap food. These are results that will follow, as naturally as water runs down hill, the development of the country by the construction of the great Pacific Railroads. When the roads are made, those who desire “farms” in any of the above named Territories, can readily purchase them for the savings in the cost of transportation, free from the risks of the scalping knife, and within a short distance of the markets, and the common and tender ties of friends.

Cincinnati and its Railroads.

EDITORS RECORD:—Nothing is more apparent, than, that the time has come, when the interests of Cincinnati demand that its disjointed system of railroads be enlarged, and systematized, with reference to the greatest economy of time, distance, cost of delivery, and permanent connections, North and South.

Our finances and commercial prospects favor, what competing interests and our business indicates should be done. There is a maturity of elements requiring the immediate united action of those interested:

Southern Railroads and River Bridge.

The wisdom of the projectors of the railroad bridge, from Eggleston Avenue to Newport, is seen in their having selected the most favorable point for topography and access, as well as economy, in position and concentration of our entire system of railroads, and their well-known means and energy is a sufficient guarantee of its early completion to meet the wants of the Louisville and Cincinnati Railroad, soon to be completed, and that of the Kentucky Central, and its branches Southward, that is now being favorably considered and provided for.

Revival of Old Projects and their Adjustment with Present Railroads.

The importance of our Southern railroads, and the large cost and difficulty of connecting by a river bridge, forcibly suggests a prompt and permanent adjustment of the termini of present railroads, and the revival and completion of partially constructed roads, centering

upon this bridge, as the most practicable and economical crossing point in and near this city.

From whatever cause any of our projected railroads have remained unfinished—whether from the costly hostility of present roads defeating them to the injury of their stockholders and real estate interests in the past and the business of the city, or from the absence of their necessity—it is very certain that our large and increasing business warrants their early completion.

Their healthful competition will be felt by the business interests of the city, while their results to the value of real estate, especially in the eastern portion of the city, will be many times in value their cost.

Such considerations should promptly secure the united action of our property-holders, business and railroad men, to carry out the policy we take the liberty of suggesting through the columns of your excellent paper.

Short Line Tunnel Road.

Some sixteen years since, the Dayton and Cincinnati (Short Line Tunnel) Railroad was begun, and a large amount expended thereon. The superior advantages of its line and branches over any others, saving ten miles to Dayton, five miles to Hamilton, five miles to Loveland, with a more central termini in the city, and freedom from street crossings, provoked the most costly opposition from competing roads, not only for the present delaying its construction, but which resulted in the delay, and almost defeat, for years, of the Marietta and Zanesville roads, and the loss of much of their capital, while the Sandusky Junction, Eaton, and other roads were greatly injured for want of the superior connections they could and would have made in the use of the Short Line.

Notwithstanding all that has been expended to defeat the Short Line, its vitality arising from the value of time and distance, and economy of construction subdivided among many roads, will surmount all obstacles, and it become the favored road of the city, and the one alone capable of furnishing all our roads to the North-west, North and East, a connection with the Southern roads by the Newport Bridge to the best possible advantage. We will seek to show some of the advantages to be made available by the different railroads in the use of the tunnel to the river bridge.

Little Miami Railroad Company.

This company can furnish its connections (Central Pennsylvania, etc.) with a saving of five miles from Loveland, through the tunnel and Eggleston Avenue to the bridge, with much greater speed, because of less street crossings, while using the Marietta road from Loveland to within five miles of the river.

Marietta Railroad Company.

This company's road crosses the short line, about five miles from the river, at a point ten miles from its termini.

It can furnish its connections (Baltimore, etc.) with a saving of five miles, and a Southern connection and a more central depot, while securing for its large and important coal interests a convenient coal depot on the upper level of the city, materially affecting the value of fuel for domestic and manufacturing purposes.

Zanesville Railroad Company.

This company is now dependent on the Little Miami Railroad, subject to all the inferior advantages of that line over the Short Line at a greater cost. Its railroad connections and local interests, especially coal interests, are suffering greatly for the want of the Short Line, and Western connections to Hamilton, etc. It can only become a profitable road by becoming an independent through line.

Junction Railroad Company.

This company, by crossing to Sharon and meeting the Zanesville road, would derive the same advantages as those derived by the union of the I. & C. and Marietta Railroads, while receiving the coal of the Zanesville road, and connecting with the river bridge and a more central depot, at a saving of five miles, and greater speed and profit, by the local trade to Hamilton, and become a through line.

Cincinnati, Hamilton & Dayton Railroad Company.

For the reason that the Little Miami Company can benefit themselves and their connections in the use of the tunnel for its passengers, at least, to this city and railroad bridge for the South, so may the Cincinnati, Hamilton & Dayton Railroad Company make available the same necessary advantages for itself and its important connections; as the Great Western Railroad; Junction Railroad to Indianapolis and Northern Indiana; Eaton Railroad, and Grand Rapids & Indiana Railroad, from Fort Wayne to Mackinaw, by simply adopting the line, it is admitted by many of its early directors, they erred in not adopting at first at less cost and distance, and prevented a competing line which has already cost this company more than a million of dollars to defeat, to the great injury of the city in the past, but the merits of which are so identified with the necessities of the city that it can not be permanently defeated. Such being the fact it will be cheaper and better for this company to unite with others in securing advantages that will in time compensate for their foolish expenditures to defeat it.

Cincinnati, Cleveland, and Columbus Railroad Company.

This company can save many miles and much time to its connections (New York Central, etc.) by using the Short Line to the river bridge from Dayton, over the use of the Little Miami via Columbus, or ten miles from Dayton, over the Cincinnati, Hamilton & Day-

ton Railroad, that can not furnish a bridge connection, and also secure independent ownership by paying about 1-6th of the cost of the fifty miles to a more central depot at greater speed.

Cincinnati, Sandusky, and Cleveland Railroad Company.

This company can save ten miles over its present arrangements, *via* Cincinnati, Hamilton & Dayton, while securing a Southern connection and independent ownership at a cost of about 1-6th of the fifty miles to a more central depot at greater speed.

Cincinnati and Mackinaw Railroad Company.

This partially constructed railroad from Greenville, North, to Lansing and Mackinaw, and Southward *via* Dayton, will become an important line of road, and will share in the cost of the Short Line for its advantages to Cincinnati and Southern connections, making of it the true axial line uniting the extreme limits of the country.

It is important to Cincinnati to have a direct road to Central and Northern Michigan, now dependent on one Southern outlet from the South-east corner of that State (Toledo to Dayton.)

The people on the line North of Greenville to Lansing purpose an early completion of their unfinished road bed.

The different roads crossing this grand North and South Trunk Line will give valuable connections with Toledo, Detroit, Sarnia, Saginaw, Marquette, Grand Rapids, Chicago, etc.

By these different railroad companies uniting and sharing in the cost of the Short Line, and maintaining it from their several points of union, each company will become independent through lines at a greatly reduced average cost per mile to each, while securing all possible advantages of time and distance and Southern connections, enabling such companies to serve the public, not only with needed enlarged facilities, but with greater economy.

There is no possible line to be adopted in the future by which any advantages can be taken of this line; hence, the New York Central and others, now without permanent arrangements, should unite in this combination.

In connection with the best plan of reaching the city, and Southern connections, the question of a grand central depot for all should be considered.

The topography of the city is favorable to a tunnel under Sixth street, from the east to the west end, reaching a central passenger depot in the Sixth street market space.

This question has already been too long delayed, and now is the time to settle it at some central point.

Cincinnati is also largely interested in reaching the more healthful uplands for country residences than those on the lower

lands of present roads. This will prove to be a profitable source of revenue.

In view of these facts and results what should be done to induce Cincinnatians interested to act? What will our Press do about it? It may be said this question, if applied to Chicago, could be readily answered.

But here, in Cincinnati, each one waits for some one to do what his interests alone prompted at first. In time, from force of losses greater than the cost at first, a project may succeed at a much greater cost.

The cost of the road to Dayton from the bridge will be within three millions of dollars, and 2-3ds of it may be raised from the bonds of the company, assuming to make the road guaranteed by the different companies, owning and using the line, leaving only one million to be raised in cash by the different interests.

The advance on real estate in the eastern portion of the city, at the price in the west end, resulting from this system of railroads, will be equal to from three to five times the entire cost of the road. What shall be done about it?

"PROGRESS."

The Future Great City.

For the B. R. Record.

If I had time it would gratify me to reply fully to the objections made in several numbers of your paper, to positions and statements of my pamphlet on "the future great city."

The writer asserts that "he (the author) has made his argument wholly on commerce," and wholly ignored manufactures. A gross misapprehension. If the author will look through appendix C, he will see some figures designed to fortify and which *do* fortify the position of the pamphlet by showing the more rapid growth of manufactures in the new than in the old States. Does he believe me so ignorant as not to know that things must be made—manufactured—before they can be carried—made the subjects of commerce? If it is the weak point of the pamphlet not to have put forward manufactures more prominently, my apology must be that I took for granted that all intelligent readers would see, in the principles enunciated and the facts adduced, an implied knowledge that manufactures not less than food must form the basis of growth. Indeed, the able critic of the pamphlet may find, on page 7, some reasons given for the superiority of the lake cities as positions for manufacturing.

Now as to the center of population. I assert that it is in Eastern Ohio and on its course North of West. The RECORD asserts that it is in South-western Ohio, near Dayton. All the reliable authorities I have found, on this subject, have given the same direction and nearly the same position to the center of the population of the United States, as the pamph-

let gives. In 1853, a very elaborate calculation, to ascertain as near as possible the then centre of population, on the basis of the census of 1850, was gone into, by an able statian, now an eminent Judge and author, with my assistance. Lines through the points of the compass were drawn over a map of the United States showing the counties and the population of each county, set down and computed. This was a laborious task, but it resulted in a satisfactory solution fixing the center near the city of Pittsburg. If that was correct, no man who has kept up with the progress of population, the last 18 years, can fail to know that the center is, now, as far North and West as Stark county, Ohio.

Who does not know that the current of new settlers flows North westwardly more strongly than South-westwardly, and that they are more efficient in proportion to numbers. Let the "RECORD" of Railways, during the last 15 years, give the proof to those who need it. As a general rule, it may be asserted that energetic people go North and lazy people go South of their native habitat when selecting a new home.

In the face of the fact that, from the lake ports, very much more than half of the surplus of human food sent off from the West is exported, it is a bold, not to say an incredible assertion that, the zone of greatest supply of human food is in the center of the Ohio valley. My critic need not be told how many uses maize is put to besides feeding human beings, nor how exclusively wheat and fish are devoted to that use.

On the whole, I am obliged by the notices in the RECORD of my pamphlet, and if the readers of that excellent railroad paper could also read the pamphlet, I should be satisfied to leave it to speak for itself. But, it embraces so wide a range of topics, that it does little more than suggest matters which would require a large volume to do justice to.

J. W. SCOTT.

The Future Great City.

We did not mean to refer to this question again. It is only interesting, as a speculative problem involving some elements of political economy. Mr. Scott's dissertation is a valuable one, because it brings out some social, and economical elements necessary to be understood, in order to understand the workings of society. First, we shall notice some of the facts, alluded to in Mr. Scott's communication. He is seriously mistaken in some of these:

1. The *Centre of Population*, by the statistics of 1860, is not as he supposes in Stark county; but is near London (Madison county), Ohio. We supposed it was about twenty miles east of Dayton; but in fact, it is nearer Columbus than Dayton. In 1791, it was in Adams county, (Penn.) The centre of popu-

lation has, therefore, moved almost on a direct West line. From 1860 to 1870, it will probably be moved a little North of that line; for the war has kept back the South, while Wisconsin, Iowa, Minnesota, &c., have grown very rapidly. But, we hazard nothing in saying, that in 1900 the centre of population must be near Evansville. The fertile lands of the North-west are nearly all taken up, while the South relieved from the burdens of slavery, and increasing rapidly in the cultivation of cereals, will fill up with population.

2. The *line of Cereal production*, is rather South of Cincinnati and St. Louis. This, any one can see on the maps. Mr. Scott, in speaking of Indian corn forgets, that there are six millions of people in the United States, and probably more, who eat nothing but Indian corn, for bread, and that there are as many more, who use it largely; besides, the more important fact, that corn makes pork, and largely beef. The food of man in the United States is composed much more of corn, than it is of wheat. In fact, no cereal bears any proportion, as a basis of population to Indian corn. The weight of breadstuffs, which goes to the support of man in the United States, by the way of bread, pork and beef, (excluding all that is made into whisky, and fed to other animals,) is *four-fold that of wheat*. This does and will modify very much the course of population and of cities, as compared with that of ancient States.

3. The *line of Great Cities*. There are exceptions to the general rule; but nearly all the great cities of the world have been on or near the isothermal axis of cereal production. This line ran almost exactly through Constantinople, Rome, Jeddo, in Japan, a little South of Pekin, North of Madrid, and nearly through Cincinnati and St. Louis. Of the great cities of Babylonia, China, and Hindoo-stan, nearly all lay South of this line. To these, there are exceptions in London, Moscow, &c., &c. But, these evidently arise from the peculiar condition of their countries. In the United States, which must soon contain one hundred millions of people, there will be several great cities and many great towns. Some of them will be created by peculiar circumstances, such as a very good site for navigation, or foreign commerce, or a domestic market. But, when we come to the great elements, such as the food centres, the money centres, the population centres, it is very difficult to see how these are to be found on the lakes. In fact, it is very evident they can not be. New York combines two great centres, the centre of foreign commerce, and the centre of the money markets. It is not easy to see how either are to be taken away in a century to come, and unless they are, New York will, for generations, remain the great commercial metropolis. But, these elements will not alone make the greatest city. We must seek for these where food,

people, and manufactures ultimately concentrate.

4. OF MANUFACTURES. In an appendix, Mr. Scott gives the populations of manufactures, in the different sections of the United States, and the proportion of increase, from 1850 to 1860; but he seems quite careful to avoid any particulars, as to the proportion of manufactures in cities. We will aid him a little in this. Here is what the principal cities of the West did in the way of manufactures, and it will be an instructive lesson to those who will examine it:

	Estab- lish- ments.	Capital.	Hands.	Value.
Hamilton County, (Cincinnati) Ohio.	2,084	\$18,983,693	30,268	\$46,995,062
Allegheny County, (Pittsburg) Penn.	1,191	20,531,440	20,493	25,563,379
Cook County, (Chicago) Illinois.	469	5,571,025	5,593	13,555,671
St. Louis County, Missouri.....	1,126	12,733,948	11,737	27,610,070
Milwaukee County, (Wisconsin).....	558	2,990,170	3,406	5,659,070
Cuyahoga County, (Cleveland) Ohio.	387	2,676,963	4,455	6,973,737
Lucas County, (Toledo) Ohio.	172	885,445	1,258	2,123,439
Wayne County, (Detroit) Michigan.	368	4,137,766	3,710	6,498,593
Jefferson County, (Louisville) Ky....	436	5,023,491	7,396	14,135,517

This is an instructive table, and we advise all lake city gentlemen, filled with schemes impregnated by the mists of the lakes, to take a look at it. Cincinnati on the Ohio river has more manufactures, employs more hands and produces more value, than Chicago, Milwaukee, Detroit, Toledo and Cleveland put together. That is not all: Pittsburg, Cincinnati, Louisville and St. Louis, the great cities of the Ohio and Missouri Vallies, produce annually of manufactures to the value of *one hundred and twenty millions of dollars!* More than in all the lake cities, towns and villages, from one end to the other. Now this is in no way accidental. For, manufactures, as well as for population, there must be *food* and *raw material*. We have already shown that Cincinnati and St. Louis are on the line of greatest cereal production, and we need not go into any details to show that they have the raw material of manufactures, both cheaper and better than any of the lake towns. *Coal* and *iron*, are the great necessities of all manufactures. Cincinnati is not a hundred miles from exhaustless beds of coal and iron, as well as timber and salt. They are borne to her at the cheapest rates, on the Ohio, the Kanawha, the Sandy, and every stream in the Valley. The same is true of St. Louis; and when we consider the latter as the real outlet of the vast vallies of the Missouri and the Mississippi, it is plain that no town on the lakes can compare with it in advantages. There is another thing to be taken into view. If the lakes are great inland seas, which create commerce, they have also taken the place of a vast body of fertile land. Lakes Huron, Erie, Michigan, occupy the place of four great States; and this takes so much from what might have been the support of a great population. The commerce of the lakes

is fast increasing and will increase; but men can not live on commerce. They must have food. They must have work. Men can not live by swapping jackets, however much Yankees may love to entertain that idea. The limits of the lakes have, and for a short time yet will increase farther, than the population of those regions justify; but, as in the case of many towns in Europe, this will in a few years be arrested, and they will be no larger than the population and productions of the country warrant.

We write rather to show the elements of the problem, than from any interest in the growth of cities. In our opinion, we have more cities and towns, than we need already; and the growth of great cities, with millions seething and wallowing in, and on and on, the mire of human vice and cupidity, can not conduce to the healthy growth or sound morals of a great nation. Some philosopher said, that great cities are great sores, and it is too true. These evil passions, corrupt principles, sordid, grovelling motives increase and multiply. No doubt there is wealth, and often great undertakings; but what is it all compared with the pure and healthy scenes of the country. When sin came into the world, man began to build towns, and see over the earth, what wrecks they have been made. *One only town comes down from antiquity, sole monument to the pride of buried nations.*

Grand Rapids & Indiana Railroad Co.

OFFICE OF THE PRESIDENT.
FORT WAYNE, IND., July 24th, 1868.

DEAR SIR:

It is about time Cincinnati had begun to understand the importance of, and to do it—push to make a direct line to Fort Wayne to connect with our great Land Grant line, which, ere long, will be ready to bring her the products of the better half of one of the finest States of the whole North-west.

We hope before January to have seventy miles of road in operation from Cedar Springs to Kalamazoo, and before the close of 1869, run trains from Fort Wayne to Muskegan at Big Rapids. This done, before 1874, (the present limitation of our Land Grant,) our rails will touch the Straits of Mackinaw, and Mackinaw City and Cincinnati join hands.

Yours, Respectfully,
JOSEPH R. EDGERTON,
President of the G. R. & I. R. R. Co.

The receipts of the Western Union Railroad Company, for the week ending July 23:

	1868.	1867.	Inc.	Dec.
Freight.....	\$8,695 17	\$8,811 26	.....	\$116 09
Passengers.....	3,418 55	3,176 44	242 11	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....

Totals..... \$12,838 72 \$12,627 70 \$212 11 \$116 09

Receipts from January 1 to July 23:

1867.....	302,500 50
1868.....	\$363,832 25

Increase..... \$61,351 75

Excursion to Detroit.

We had intended to have been, "with them" on the occasion of the excursion to Detroit over the C. H. & D. and the Cincinnati Sandusky and Cleveland railroads last week; circumstances over which we had no control, however, prevented. We take it for granted that the statements of those who "went the rounds" is correct, that they had a "good time". The Correspondent of the *Times* says:

"Taken all in all, we have never participated in a more delightful excursion than the one just made, or traveled over a more agreeable route. The Sandusky & Cincinnati Railroad is not surpassed, and there is no more fast and commodious passenger steamer on the Western lakes than the Jay Cooke, which connects Sandusky with Detroit."

The following are the united expressions of the excursionists:

Shortly after leaving Detroit, the excursionists assembled in the cabin and elected J. Z. Reeder, of the Dayton Journal, President, and W. W. Beach, of the Sandusky Register, Secretary.

T. O. Lowe, Esq., of Dayton, delivered a brief complimentary speech, after which Messrs. B. J. Loomis, of the Cincinnati Chronicle, Q. A. Petts, of the Springfield Republic, and Major L. Markbreit, of the Cincinnati Volksblatt, committee on resolutions, reported the following, which were unanimously adopted:

Resolved, That for the delightful excursion enjoyed by us, through the courtesy of Rush R. Sloane, President of the C. S. & C. R. R.; S. S. L'Hommedieu, President of the C. H. & D. R. R., and J. C. Williams and D. McLaren, Superintendents of those roads respectively, and to the proprietors and officers of the Star and Jay Cooke we tender our cordial thanks.

Resolved, That we hereby express our personal obligations to T. H. Goodman, Esq., General Ticket Agent of the C., S. and C. R. R., under whose vigilant and untiring supervision the excursion has been rendered so agreeable and successful in all respects. Our acknowledgments are also due Mr. John Ewing, agent, Mr. John Brannon, conductor, Horace Brooks, engineer, and Wm. Swanston, master mechanic of the C., S. and C. R. R.

Resolved, That the hospitality of Mr. J. D. Bourne, of the Island House, Kelly's Island; Messrs. West & Elder, of the Put-in-bay House, Put-in-bay; and to Messrs. Whisbeck & Crittenden, of the Russel House, Detroit, we are especially indebted for much of the pleasure derived from this excursion.

Resolved, That the C., H. and D. and C., S. and C. Railroads, and the staunch and reliable steamers above mentioned must continue, as heretofore, to command a large share of public confidence and patronage so long as they remain under the presentable and generous management.

Since our notice of the contemplated air-line hence to Lansing, Michigan, we learned that the project is receiving practical attention in Michigan, and that a meeting is called at the Oliver House, Toledo, on the 4th of August next to consolidate the Ohio and Michigan interests. In 1853, the project of constructing a road from Greenville, Ohio, to Mackinaw, was set afoot, and sixty-three miles of a road-bed was graded, to Van Wert, on the Pittsburg, Fort Wayne and Chicago

road. The interruption of the war prevented further progress, but now that railroad enterprises generally are looking up, that interest, together with the thirty-eight miles of a road-bed, north of the Ohio State line, in Michigan, claim the attention of the projectors, and the meeting at Toledo will probably develop the project of placing Cincinnati within less than twenty-four hours' reach of the Peninsular point.—*Cin. Com.*

Testimonial to an Ex-Railroad President.

Mr. E. W. Woodward, former President of the Little Miami Railroad, was visited at his house, in Morrow, Ohio, last Saturday evening, July 25, by a large party of his railroad friends, and presented with a very elegant bronze statuette, bearing this inscription: "E. W. Woodward; from his friends and former employees on the Little Miami and Cincinnati and Xenia Railroad, July, 1868."

In order to make the surprise more complete, Mr. Woodward was decoyed to the house of his neighbor, Mr. Clement, and in his absence the statuette was conveyed to the parlor of his house, and there mounted on its pedestal.

He was therefore not a little amazed on his return as one after another of the party arrived at his door. After assembling in the parlor, Mr. Fuller, General Freight Agent of the road, in behalf of the delegation arose and said, in substance, that the old guard had assembled to present to their former chief a token of their respect and esteem, and also to acknowledge the many favors received at his hands during his long association with them as their officer and friend; and they wished this testimonial to remind him of their continued friendship; that although he was no longer to be connected with them in business, they hoped still to retain his regard.

Mr. Woodward replied, thanking his friends for their beautiful present, but added that he should always remember his friends, even without this memento, and he assured them that the change in their relations would not in the least alter his kind feelings toward them; that, although the skill with which they had covered their designs in this matter was commendable, he was sorry that, being on the eve of his departure with his family, and wholly unapprised of this visitation, they found him unable to offer them any entertainment, but he said that in his new house, to be completed in the coming autumn, where he should place the statue, he should also call his friends together for a more appropriate acknowledgment of their beautiful gift, and closed by again thanking his friends for their kindness.

As the hour for the train approached, the party retired, well satisfied with the success of their enterprise. The statuette is a draped female figure standing on a marble base, representing one of the sisters of Hesperides, guardian of the golden apples. She holds an apple in each hand. The interior of one is a clock and of the other a barometer—both of exquisite workmanship.—*Cin. Com.*

Our Southern connection, should it ever be made, would open up the rich mineral region of Northern Alabama, Georgia and Tennessee, and by that is meant more than has yet been intelligently set forth even by the all observing newspapers. Two hundred miles from Cincinnati lies a valley rich with

iron, gold, silver, lead, copper, marble, and soap-stone, yet for want of a railroad to bring this wealth to our feet, it lies there valueless to us. A railroad is wanted to Chattanooga or Cleveland, Tennessee, from Nicholasville, Kentucky, a distance of about 185 miles. Louisville and Knoxville, Cleveland and Asheville, N. C., Knoxville and Charleston, S. C., which are all working now to perfect their connections, will soon be linked together by rail; and why will not Cincinnati see how much it is to her interest to place herself at least within reach of the magic chain? A road to Chattanooga will bring into our lap the cotton and minerals of the region named, and would open up to us a scope of country from Beaufort, North Carolina, to Mobile, Alabama. Without this road, Cincinnati must sustain irreparable loss.

The distance from Cleveland, Tennessee, to the copper mines is forty miles. The State of Tennessee appropriated to the railroad \$15,000 per mile, and \$100,000 for bridges. The Consolidated Copper-Mining Company was authorized to issue their own bonds to the amount of half a million dollars, and the road being estimated and located, other operations will commence without delay.

From the copper mines to Asheville, North Carolina, is a distance of 140 miles, and under the late constitution of North Carolina all other State aid is prohibited until this line of road is completed to the mines in Polk County, in that State. These mines have been in successful operation for sixteen years, and the average cost of putting ingot copper in New York, for the last ten years, is sixteen and one-tenth cents per pound, and they are now refining over 300,000 pounds of ingots per month. Besides diverting the copper industry in favor of this city, the completion of the railroad between Nicholasville, Kentucky, and Chattanooga, or Cleveland, Tennessee, the cost saved to the copper interest of Cincinnati alone would be three cents per pound, at least. This commodity is mentioned because an accurate calculation has been made upon it, by way of illustration.—*Cin. Com.*

Greenville & Columbia (S. C.) Railroad.

Gov. JAMES L. ORR, in his recent message to the Legislature of the State of South Carolina, now in session, gives the history of the financial difficulties of the Greenville & Columbia Railroad, and judiciously recommends such legislative action as will at once protect the interests of the State from being sacrificed, and do justice to all the creditors of the company, and not allow an insignificant amount of claims to gobble up a truly valuable property. The Governor says:—

THE GREENVILLE AND COLUMBIA RAILROAD COMPANY.

This Company issued its bonds in 1852, 1853 and 1854, to the amount of \$800,000, and secured payment of the same by first mortgage upon the road. In 1861, when the debt was about falling due, the General Assembly authorized the Comptroller-General to endorse the guaranty of the State upon the bonds of the Company to the amount of \$900,000, thereby pledging the faith and funds of the State for the payment of the principal and interest of said bonds—\$800,000—to redeem and cancel the mortgage bonds, and the remaining \$100,000 to liquidate the then floating debt of the Company. In

conformity to this Act the first mortgage bonds were all redeemed except \$326,000.

The Act provided that these original mortgage bonds, when taken up and deposited with the President of the Bank of the State, should stand as security to the State and give the State a lien under the first mortgage until all the bonds now secured by mortgage should be retired. These mortgage bonds were deposited from time to time as they were exchanged with the Bank of the State of South Carolina. The Act further provides, that when the whole of the mortgage bonds shall have been redeemed by the guaranteed bonds, the whole estate, property and funds of the Company within the State, which they shall then have, or afterwards acquire, shall stand pledged and mortgaged to the State without any further act or deed on the part of the Company, for the faithful and punctual payment of these guaranteed bonds, in preference to any other debt which the Company may owe.

The parties holding the outstanding \$326,000 of original mortgage bonds, have neglected or refused to surrender them and take in their stead the guaranteed bonds aforesaid. Some of these bond-holders, representing about \$80,000, a year ago filed a bill in the courts to foreclose the mortgage and force the road to a sale. This was resisted by the Company and by counsel representing the State. Subsequently a bill was filed by those holding the guaranteed bonds, very properly maintaining that when surrendered by them the bonds were simply retired and not redeemed or paid until the conditions of the Act were fulfilled; and claiming that they should be permitted to come in and share equally with the original bond-holders in the proceeds of the sale; and further that the reservation by the State of the original lien for the benefit of the State should be declared to inure to their benefit which would seem to be honest and proper.

Subsequently, another bill was filed by a class of creditors who represented the second guaranty upon the road. With the view of having all parties in interest properly before the court, the Attorney-General was instructed to file an information in the nature of "a cross bill and bill for injunction and relief," in which bill all suits and creditors were enjoined from proceeding further against the Company, and required to come in as parties defendant to the bill filed by the Attorney-General. It is insisted in this bill that the State, or the parties holding the guaranteed bonds of the State, shall be permitted to share equally in the proceeds resulting from the sale of the road and its entire estate, if it should be sold; and there is little reason to doubt that such will be the decision, since it is so manifestly just. Any other decision would operate as a fraud upon the State and the guaranteed bond-holders.

These cases have not been brought to a final hearing, and it is not known whether the court, at the instance of a very small portion of the bond-holders, representing less than one-tenth of the general interest of that class, will permit them summarily to foreclose the mortgage and bring the road to sale; but I have felt it to be my duty to lay the subject before you and invite to it your special attention, in consequence of the large interest which the State owns in this corporation.

Its interest as a stock-holder... \$433,960 00
Under the Act of 1861, in guaranteed bonds, (only \$700,000 of the \$900,000 authorized have been actually endorsed) 700,000 00

Under the Act of 1866, endorsing certificates of indebtedness to pay interest and coupons 203,848 89
Under the fourth section of the Act of 1866, where demands have been surrendered three for one..... 41,622 38

An aggregate of..... \$1,379,431 27

If an arrangement could be made by which the remaining \$326,000 of original mortgage bonds could be redeemed and cancelled, there would be no pressure of creditors which would interfere with the operations of the road for years to come. There could be no greater misfortune to the public, or no proceeding more ruinous to the State, than that the road should be brought to sale at a time when the financial embarrassments surrounding individuals and corporations are so widespread. If a decree should be made for its sale, it is not improbable that this large interest of the State would be entirely lost, and that the people, by future taxation, will have to make good the whole amount of the guarantees upon the bonded debt, to wit: \$945,029.87.

I therefore recommend that provision be made for the satisfaction of the original mortgage bonds upon some basis fair and just alike to the State, the Company and the creditors; or, if that can not be done, that such action be taken as will to some extent, at least, secure the large interest of the State in this corporation, in the event of its being ordered to be sold. I have felt it to be my especial duty to postpone and defeat the foreclosure of the mortgage, at least until the subject could be brought to the attention of the General Assembly, and ample time be given your body to make such provision to guard the State against ruinous loss, as in your discretion may be judicious.

Liverpool Connected with Lake Ontario in One Week.

[From the Oswego Advertiser and Times.]

The convention to take place at Portland the 4th is an important one, having in view a connection with the Northern Pacific Railroad, as the most direct, level and shortest route between Asia and Europe.

We beg leave to make the following extracts from a letter just received from our correspondent in Boston, who takes a deep interest in the Ontario Lake Shore Railway, reaching Oswego, as the best point across this continent to reach Puget's Sound and thus Japan and China:

Boston, July 22, 1868.

"I return Mr. G. Smith's letter and am glad that he takes an interest in our line. I have sent your notes to Mr. Crane. He has his eye on Salmar Falls, or some such place between Oswego, Henderson and Ogdensburg."

"Why do you not shape the thing yourselves, by opening a direct line to Boston, to intersect the Rome & Watertown Road on an air line at Balston.

"On the 4th, I go to a convention at Portland to help push the line from Bangor to St. Johns, near the head of the Bay of Fundy, to Halifax and Picton, to Lewisburg or Sidney on Cape Breton, within five days run of the Cove of Cork, a distance of 1,800 miles. We propose to have this finished by 1872, when our tunnel opens, to take passengers in one week from Liverpool to Lake Ontario."

"Our views are comprehensive. I like the

idea of shortening the run by Oswego to Buffalo."

On Monday, August 10th, we have an opening to the Hoosic Mountain, 6 miles east of North Adams, thus reducing the road to Troy to 185 miles, with easy grades. We are arranging to run through Troy to Boston in ten hours."

"The last rails are laid this week to the Mountain. The \$5,600,000 makes everything move."

The Population of Chicago.

The recent census of the Board of Health and the publication of the new City Directory afford statistics which have given the text for several discussions on the present and prospective population of the city of Chicago. A census can hardly be made complete; and naturally when it fails, it fails to enumerate all rather than to count too many of the people. Especially is this the case with the late census of the Board of Health, which could not be so thoroughly conducted as one under the auspices of the General Government. Not that we have any reason to complain of the result obtained by that census. For a city which numbered 109,420 in 1860, a population of 242,000 shows a very pretty increase—an increase which is at the rate of 170 per cent. for the current decade.

Of course we can not expect that this rate of increase will continue forever—we do not hope it. At this rate the city would contain 5,634,000 souls in the year 1900, and more than 750,000,000 in 1950, which would inconveniently crowd even Chicago.

The desirable thing in considering these statistics is to deduce a law of progress—to ascertain the rate of decrease of the decennial percentage of increase. Of course there are various circumstances which modify this law, and all of these can not be comprehended in deducing such a law. But we may at least approach the truth, if we can not attain it.

If we examine the census reports of the chief Western cities, and also of New York, we will find the decennial percentage of increase as follows:

	1820-30	1830-40	1840-50	1850-60
St. Louis...	27	181	373	106
Louisville..	150	105	104	60
Cincinnati.	152	86	128	37
Buffalo....	.....	.....	132	93
Cleveland..	.....	.....	186	155
Detroit....	.....	.....	131	123
Chicago....	.....	.....	531	286
New York..	63	54	65	59

In discussing the rate of increase, we will take the census returns of the Board of Health rather than the estimates made from the names in the Directory, the former showing a population of 242,000, while the latter indicates it to be more than 300,000. The former number, though too small, will serve better to compare with the return of the census of 1860, which, doubtless, was also too small, though probably less faulty in this particular than is the census of the Board of Health. At least the adoption of this return will insure us against extravagance; and in this estimate we prefer to make the most moderate reckoning the facts will sustain—very much as a Cincinnati might be expected to do. This census of the Board of Health, then, shows an increase which, for the decade, would be at the rate of 170 per cent., which will make the population in 1870, 294,000.

The rates of increase for three decades have been 531,286, and 170. The percentage of increase of the second decade (1850-60) was very nearly 46 per cent less than that of the first; while the percentage of increase of the third decade is about 40 per cent. less than that of the second. So the history of the city thus far shows that this per centage of increase has diminished hitherto quite regularly. At this last rate the increase of the next decade (1870-80) will be 102 per cent., and the population in 1880 will be 594,000.

But the diminution of the rate of increase can no more continue forever than can the present rate. If it could, every city would very soon come to a stand still. Evidently, after the resources of the surrounding country have been opened, and the country itself generally occupied and utilized, its improvement and growth, and that of its metropolis, will become more regular, if less rapid. New York is an eminent instance. As the preceding table shows, the rate of increase for the four decades since 1820 has varied only from 54 to 65 per cent., the average being 60½ per cent., and the figures showing no regular decrease. It is to this condition that Chicago will probably come. If the rate of increase sinks from 170 to 102 per cent. in the next decade, at the same rate of decrease, our increase of population will be 61 per cent. between 1880 and 1890. Then first shall we reach the condition of steady and regular progress which New York has held since 1820. Assuming that Chicago holds that rate of increase for forty years, as New York has done, the population of the city will be 951,000 in 1890; 1,520,000 in 1900; 2,432,000 in 1910; and 3,881,000 to 1920. To these moderate figures those who believe that the present population is 300,000 instead of 242,000, must add a quarter, and the population in 1900 will then be 1,900,000.

As has been said, we have taken the smallest estimate of the present population, one that is certainly too small, and it follows that the per centage of increase for this decade is also too small. But the results are sufficiently great to satisfy the most enthusiastic believer in the future prosperity of the city. If it is objected that no city of more than a million of inhabitants has been known to increase at the rate we have estimated for the next century, we answer that no city has been known to increase as Chicago has done since 1840. But let the next century go. We will look no further than the year 1900, at which time, as has been indisputably demonstrated, if Chicago follows its law of growth, its rate of increase decreasing from decade to decade as we have shown, it will have a population of a million and a half.—*West R. R. Gazette.*

Our Possessions in the Pacific Ocean— Sandwich Islands.

(From the Cincinnati Gazette.)

We had just received an assortment of photographs of the persons and scenery of the Sandwich Islands, when we saw the statement that the Lackawanna had taken possession of the "Midway Islands," as they are christened, and hoisted our glorious flag, in the name of the great republic. As this costs no money, and kills no people, we suppose the acquisition will be submitted to. The family of growlers can take no exception to so small a departure from the great rule of standing still. For ourselves, we have always believed it our duty to be pitching our tents toward the setting sun, and as the earth is probably

round (according to received theories), the solution of the problem will be found in encircling the globe with the flag and the institutions of the republic. It is true, that after crossing the Pacific, some three or four hundred millions of people will object to our going further. But that difficulty is easily surmounted. Those people can just take their choice, between being converted to true Americans or moving West as the Red Indian does, till he perishes in the desert and the sea. Most of them will probably be converted to Americanism, though the result is yet doubtful, for, as BAYARD TAYLOR once said to us, the Chinese are the meanest people on the face of the globe, and it may be their destiny to disappear before the Anglo-American; as his mongrel descendants have in America. Numbers are nothing; for we have only to look upon the Egyptian Thebes, upon Babylon, and Nineveh, to understand that overthrowing nations is a very easy thing, when they come under the wrath of God. The cormorant, the owl, and the bittern, in the very language of prophecy, dwell where the polished Babylonians once dwelt in the pride of antiquity. But, we are going too fast. We are just now at the Midway Islands. Where is that? The account says about midway between the Sandwich Islands and Japan. There are about sixty degrees of longitude between them, and probably the Midway Islands are not far from a thousand miles from Japan. In this range are numberless little islands, many of them claimed by European powers, but, probably, many not claimed by anybody. Thousands of islands have been discovered in the Pacific, and there are probably thousands of others which have never been discovered. The Pacific is, as its name implies, a calm, placid sea, easily navigated in open boats. The coral insect and the volcanic action which prevails largely in that part of the globe, have raised numerous islands, and the same causes are constantly at work. Most of the Pacific islands, however small, are inhabited by people who doubtless came in open boats from Asia. Toward the American side, the most interesting group, by far, is the Sandwich Islands. These are now the Kingdom of Hawaii, and the Hawaiians are a comparatively civilized people. This is entirely due to the American missionaries, who went out about half a century since, and in a few years converted half the Hawaiians to Christianity. At the last account we saw, twenty thousand Hawaiians were in the American churches there. But a part of the people are still pagan, and numbers of them are laboring under that terrible overshadowing of European vices which has destroyed the Indian before the white in this country. The Hawaiian is of a very dark brown complexion, as if he might have been a cross between a negro and an Indian. But he is not. He has no part of the negro look, but is a pure Mongol, of a milder nature than our Indians. The same is true of all the inhabitants of the Pacific isles, unless we except the Negrillo of Australia, one of the ugliest and worst put-together breeds of the human species. Dr. PICKERING makes of him a distinct variety of the human race. The Sandwich Islander is of a mild, amiable and teachable disposition, not treacherous like the Malays generally, nor savage like the Australian; but has ever been ready to give and accept kindness, to learn the ways of those who knew better, and at the same time equally ready to yield to the soft and luxurious vices of the European white. We hear the race is diminishing, and we fear that, like the red Indian of this country, he

will perish in the burning light of the European race.

A few days before we saw an account of the acquisition of the Midway Islands, we received a letter from Paymaster C. D. MANSFIELD, of United States ship Mahongo, the full meaning of which we did not then understand. It gives a better account of the islands, which he calls the "Brook Islands," than is given in the newspaper account. He says:

While Mr. Seward has been negotiating for St. Thomas in the West Indies, the United States steamship Lackawanna has been surveying Brooks' Islands, latitude, 28 degs. 15 min. north longitude; 177 degs 22 mins. West, in this ocean, discovered by an American whaler in 1839, but of which little notice was taken until recently; it will eventually be very important as a coal and provision depot for the China lines, it being about half way over, and almost in their direct course. The greatest difficulty those steamers now experience is to carry sufficient coal and supplies for a voyage of near six thousand miles, and still have room left for a paying freight.

One of the islands is fertile, having good water and plenty of fruit, and abounding with birds; the other comparatively barren. Inside of a coral reef, somewhere near forty miles in circumference, is a lagoon, into which vessels of ordinary draught of water can readily pass, and find safe anchorage; by artificial means the depth of water over the reef can be readily increased. With the stability given us by our agricultural and mineral resources, and our so rapidly extending commerce, who shall say to what greatness as a nation we may not aspire. Thus the ancient civilization of China and the further Indias, traveling to the westward for centuries, developed and increased by gradual accretion and the light of Christianity, returns at last to the cradle of its infancy to mingle with the old leaven, and gradually reilluminate the land of its birth.

There is one thing now imperatively demanded by the extension of steam navigation on this Ocean, and that is a more accurate survey of the sunken rocks and shoals which are innumerable in Polynesia, but the location of which is exceedingly doubtful.

It is plain the Midway Island will make a most excellent and useful coaling station, and thus enable our Pacific and China line of steamers to make profitable voyages. The reader is aware that there is now a monthly line of steamships from New York to China. It is now receiving more custom and profit than was expected, and it is evident that the great tides of European civilization is flowing towards the West—the East that once was, now having become West. In the meanwhile we hear that the Central Union Pacific Railroad is to be finished on the 4th of July, 1869. It is quite evident that this will at once cause a demand for another steamship line from San Francisco to China. In fine we begin to see the wheels of the final revolution, which shall establish the future of mankind rolling on. It is a glorious prospect, and happy will they be who live to see the consummation of that revolution.

Paymaster MANSFIELD then writes of the political and religious state of the Sandwich Islands, from which we may gather it is not unlike our own, and the Islanders are enjoying, on a small scale, the controversies, jealousies and intrigues which we enjoy here. He says:

There are here, among the whites, two classes of people, both, religiously and politically speaking, the missionaries and the people of

the world—the opposition and the ministerial party. The former consist of the families of the original missionaries to these islands, the leading man of whom is Dr. Judd. To this class also belong the teachers and the missionaries, who use this as headquarters, and go forth from hence on their errands of mercy to the Island of Micronesia. There, missionaries are conveyed from station to station, on the "Morning Star," built by the mite subscription of Sunday school children in the United States. Could they see the results of their accumulated generosity in the beautiful brig which now lies in this harbor—its towering masts, cleanly scraped; its newly painted hull, as it sits gracefully on the water: its neat and spacious cabin, the harbinger of light to the benighted—they would clap their hands with delight, and feel stimulated to still greater exertions. The labors of these missionaries I think are hardly appreciated by the world at large, for not alone do they spread the light of Christianity abroad, but they civilize and open to commerce these islands.

The Protestant churches, however, are not the only ones pushing forward this work. The Catholics are very strong and very energetic priests; hard working and self-sacrificing, have now a strong hold upon the natives, and yesterday celebrated Corpus Christi by an imposing procession through the streets of Honolulu. Ritualism is here, too, and so is every other religious belief and form. The remaining portion of what is called the foreign element, consists of merchants, families of whaling captains and political adventurers, the first and last one, as a matter of course, fortune seekers, who keep up a continual snarl over the crumbs which are blown hither over the waters. They have stepped in after the great work of the missionaries has been accomplished to reap the pecuniary harvest. Working upon the feelings, superstitions and prejudices of the King, they have pushed themselves in his ministry, and obtaining the reigns of government, use it, it is said, to their own advantage. Between this class and the adherents of the missionaries and original settlers, who claim the leading position by priority, and what they have accomplished, a continual war is being waged.

The public buildings do not amount to much. The Departments of Public Instruction, Interior, etc., are situated in a two-story frame building, on Fort street. Parliament House looks much like a country Court House. In the hall, on the second story, the House of Nobles and the Legislature meet together, there not being enough, I suppose, of either branch to make a respectably sized body, if they meet together. The President of the Assembly is the "Father of the King," a large, portly native, with, like all the rest of the natives, the appearance of being a negro, with just sufficient Indian blood to take the crisp out of his hair. He is purely ornamental; too old to take any part in the proceedings.

But we need not proceed with an account of the Hawaiian Assembly, which is about as dignified and important as one of our city councils.

But, the Sandwich Islands, are they not to fall, like a ripe plum, into our basket?

COAL MINING IN ENGLAND — There are 320,663 men and boys employed in 3,192 coal mines in England and Wales. One serious accident takes place for every 117,537 tons, and one life is lost for every 67,877 tons so raised throughout the kingdom; but this average is the mean between widely divergent

extremes. The East Scotland Collieries give 190,625, and those of South Durham 129,826 tons of coal for every life they take. West Scotland and the midland counties of England stand pretty nearly on a par 131,000 tons per life. In Northumberland and North Durham, where the seams are more fiery than any others, the rate is one life lost for every 108,725 tons. In North Lancashire it is one to 98,173, and in South Staffordshire one to 94,495. In Monmouth and South Wales the proportion is between 74,000 and 76,000, while the rest of the districts show a diminishing yield per life till we get to North Staffordshire, where it is 30,387, and wind up with Yorkshire, where it is only 22,235.

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

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1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

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Milwaukee, Wis.

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167 Walnut St., Cincinnati, O

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON. }

CINCINNATI:
THURSDAY, AUGUST 6, 1868.

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ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	5:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Cincinnati and her Railroads.

We had not intended to write much on this subject; partly because the subject is nearly exhausted, and partly because what we say, seems to fall on dull ears and understandings. A correspondent in our last week's issue, and copied into most of the daily papers, signed "PROGRESS,"—has, however, summed up the matter so well, that he has aroused in us something of our old interest in whatever concerns the railroads of Cincinnati. Taking his article as a text, we will add some comments on the present situation of railroad affairs here, and on what is needed for the future. Many of the railroads, and works connected with them, which Cincinnati needed, are finished; but it happens that two or three of the most important works have not been done. Let us see what they are:—

1. Our railroads *have no common depots and no common connections.* 2. The Southern railroad, and most important of all, is *not* done. 3. A railroad bridge over the Ohio which will connect the South with the North, is *not* made. 4. The Mackinaw railroad, which is to make the greatest arterial line of the continent, is *not* made. Now let us consider them in order:

1. A common depot and common communications. They went to work in England just as we did in making railroads, helter-skelter, all of them, however, coming to London. What happened? Why, they soon found that it was essential to the profit of all; that the great lines, coming from distant points, must unite somewhere, and they did it at an immense expense. That is what we have got to do or all the roads will be less profitable by much, than might be. How should this union be affected? "PROGRESS," in his article, speaks very correctly of the effect which would be produced on several of the railroads by the completion of the "Tunnel." Of this enterprise we have spoken repeatedly, and commended with all our zeal, yet, when the work was under way and seemed to be a success, the effort was broken down, and this really great work remains a monument, as it seems to us, to the want of sagacity on the part of both the railroad companies and of the commercial men of Cincinnati. All the railroad companies, except two, and we doubt whether they were exceptions, were directly, positively, and largely interested in the completion of the tunnel. How interested? In order to show the condition of this matter, we quote "PROGRESS":—

Some sixteen years since the Dayton and Cincinnati (Short Line Tunnel) Railroad was begun, and a large amount expended thereon. The superior advantages of its line and branches over any others, saving ten miles to Dayton, five miles to Hamilton, five miles to Loveland, with a more central termini in the city, and freedom from street crossings, provoked the most costly opposition from competing roads, not only for the present de-

laying its construction, but which resulted in the delay, and almost defeat, for years, of the Marietta and Zanesville roads, and the loss of much of their capital, while the Sandusky Junction, Eaton, and other roads were greatly injured for want of the superior connections they could and would have made in the use of the Short Line.

Notwithstanding all that has been expended to defeat the Short Line, its vitality, arising from the value of time and distance, and economy of construction subdivided among many roads, will surmount all obstacles, and it become the favored road of the city, and the one alone capable of furnishing all our roads to the North west, North and East, a connection with the Southern roads by the Newport bridge to the best possible advantage.

This statement is entirely true. When the Short Line (or Tunnel) enterprise was in course of construction, Mr. KILGOUR, (one of the principal managers of the Little Miami Railroad,) told us that the Little Miami would be the first to go through the "tunnel." Exactly, but the managers of that line were then quite willing it should stop without their aid, because they *then* thought they could compete with all other Eastern lines without the "tunnel." Time has proved that very short-sighted policy. A comparatively small assistance would then have finished the tunnel, and it would have given the Little Miami *an advantage over every other road entering Cincinnati.* It would not only have made a shorter line, but carried its business on to the upper plateau of the city, and given that company an accessibility and convenience not possessed by any road in the city. The same is true of the Marietta and Zanesville roads. It is not too late to correct this blunder yet; and *some road will do it*, because it is a prize which lies right before them. We are told that six hundred thousand dollars will complete that work, and what is six hundred thousand dollars compared with the advantages of it? Suppose then, that some company (the Little Miami for example,) were to complete that work; how ought it to be done? And what is to be the effect? The late Gen. MITCHELL and ourselves talked that matter over fifteen years ago. The object being not only to complete the tunnel but to make a common depot and communications with all the roads. The true plan is to *tunnel* Sixth street, making a depot on Sixth street market space, and communicating at the West end with the Hamilton & Dayton, the Indianapolis, and the St. Louis roads; and at the East end with Eggleston Avenue, the bridge over the Ohio, the Southern roads, and the steamboat trade. In this way, at comparatively little cost (for we don't believe the whole work would cost over a million of dollars,) *all the railroads in the city would be united in a common center* without interfering with any other interest or disturbing any property. We take it for granted that the Little Miami, the Marietta, and the Zanesville roads would, in regard to passenger traffic, at least go through

the tunnel. The other roads will find it greatly to their interest to unite with them. One thing is very evident, that, so far as regards their business in Cincinnati, all the roads have more interests in common than they have interests in antagonism. What can they do better for themselves than to unite in a common center and common transfer and distribution. It seems to us that the railroad companies have greatly mistaken their interests in not having done this long since. They may wait for a time, yet, jealous of each other, but they may be assured that *some company* will soon step in, finish the tunnel and find the companies, in self-defence, to pay much dearer for it than they need have done.

2. *The Southern road.* We have recently stated the condition and prospects of this enterprise that little remains to be said. Why is it not made? Because Cincinnati does not set the example, without which capital will not embark in a road passing through a country so sparsely settled. In the meanwhile two things are being done which will bring matters to a crisis. First, the Tennessee lines, of which there are two or three, are rapidly being completed to the Kentucky line, which will soon bring the interior counties to take the same measures and do the same work. But there is another matter, which if it does not startle Cincinnati nothing will. This is the efforts and the partial success of Louisville in attempting to cut Cincinnati off from the Southern trade. First, Louisville is making what is called the Lebanon Branch, which will carry them up to the Tennessee line. Next, Louisville, (through her municipal authorities,) are cutting off the Cincinnati and Louisville road (now making,) from any connection with the Nashville & Memphis roads short of a mile and a half. Of course this is almost prohibitory of a through traffic of any benefit to Cincinnati. Of course, if Cincinnati quietly submits to this it will be in vain to seek her aid for any Southern road.

3. *A railroad bridge over the Ohio,* to connect with the Northern roads, is an absolute necessity. Leaving the question about the breadth of span entirely out of view, we say, that bridging the Ohio for railroads is a matter of necessity. The mode in which the bridges shall be made may be left, as it has been by a recent Act of Congress to engineers; but we say that the bridges are a necessity, and the necessities of commerce will force them through. The question of a bridge is not a new one. Many years since we used to sit in winter evenings with an enlightened and wealthy gentleman of Cincinnati, discussing the necessity of a bridge and the mode in which it should be built. It was not then known that a suspension bridge of sufficient length could be made, and certainly we never conceived of making an arch of 500 feet. The bridge we planned was to go from the foot of Broadway to the mouth of Licking river, and branch to both Newport and Cov-

ington. The plan was to make an ordinary bridge with *draws*; no doubt it is a great deal better to do without draws; and, probably, modern engineering may devise a mode of satisfying the objections on the score of the span, and at the same time make the bridge safe. But, at any rate, we repeat that commerce demands a bridge.

4. *The Mackinaw road.* We had intended to consider this project in this article, but its merits demand a more special and thorough discussion than we can now make. We shall leave that for another time, merely repeating what we have said above, that the Cincinnati & Mackinaw Railroad, extending on one side to Florida, and on the other to the Straits of Mackinaw, will be the greatest axial railroad in the country.

The Atlantic & Great Western Railway.

We have before us the Annual Report of the Receiver of this road for the year ending March 31st, 1868. The history of this work is familiar to our readers. A portion of it under a different name was planned nearly twenty years ago, but the subject dropped, owing to financial revulsions, and the public heard no more of it for many years. We were surprised, when in a few years, it was suddenly taken up and carried through by its enterprising builders. Notwithstanding, it became embarrassed, and is in the hands of a receiver, it is, on the whole, a very successful work, and with a promise of large future profits. The *net profits* of the last current year were *one million, two hundred thousand*, 6 per cent. on a capital of twenty millions. Now it is true the road consumed this in permanent construction, but its net profits show its capacity for the future.

The Receiver's Report before us is a very interesting document, both to the owners of the road and to the public. It contains a great variety of facts, which show how such a vast enterprise is conducted, and how complicated is its machinery. It seems to us, that the Receiver and his co-managers are conducting the road with great skill and success, and we doubt not will speedily relieve the work from all embarrassments. The merit of the undertaking, and its capacity for future profits, will appear from a brief review of the report.

1. *Of the Road and its objects.*—The Atlantic & Great Western road had originally two terminis, wholly within the interior, and not connecting with either an Eastern or Western city; viz.: from Dayton, (Ohio,) to Salamanca, (N.Y.) But all connections necessary to meet the great commercial wants have since been made, through the Cincinnati Hamilton & Dayton R. R. and the Erie R. R. The Atlantic now goes into Cincinnati by means of a third rail laid on the Dayton road, and directly into New York by the Erie road. In addition to this, the Atlantic has two

branches, the Franklin, from Meadville to Oil City, 33 1-5 miles, and the Silver Creek, 5 miles, and it has leased the Mahoning road, 81 1-5 miles. These branches make 119 2-5 miles, and with the original road make an aggregate of 505 9-10 miles. This is a great work, connecting Cincinnati, Cleveland, Oil City and New York all together.

2. *Business of the Road.*—As may be supposed, the business of this road is very great, and quite different from almost any other road. It is well, perhaps, to note in what this difference consists. The Atlantic & Great Western is wholly an inland road, being neither in the basin of the lakes, nor the valley of the Ohio. It runs in fact over the high but rich plateau which divides the lakes from the Ohio. This being the case it must derive its main business wholly from interior production, agricultural and mineral. As might be supposed, the *freight* receipts are more than three-fold those from passengers. The following are the aggregate receipts derived from the Report of the Auditor:

Freight Earnings.....	\$3,955,410 16
Passenger "	1,180,661 40
Incidental "	90,316 34

Totals..... 5,126,377 90

The sum of freight received was 1,738,522 tons. The largest amounts received were at Cleveland, Youngstown, Salamanca, Niles, Girard, Newburg and Dayton. An examination of these freights show that they are largely mineral productions, and the residue agricultural. The following classification of some of these products may surprise the reader, and illustrate the immense mineral resources of Ohio and the Ohio valley:

Mineral Coal.....	687,882 tons.
Iron and Ore.....	194,962 "
Crude Petroleum.....	170,317 "

The mineral products yielded the company nearly a *million and a half of dollars on freight*. The next largest article is that of manufactures, which gave 170,000 tons, and was about equal to all the freights of agriculture.

An examination of the tables show that the great bulk of coal and iron was shipped from the North-east counties of Ohio.

The number of passengers carried over the road were as follows:

Eastward.....	350,677
Westward.....	365,190

The revenue derived from them was rather less than a million of dollars.

The transportation expenses *proper* were but \$3,168,837 39, making nearly two millions profit; but the receipts were charged with certain repairs and renewals, which reduced the net profit to \$1,200,000.

We cannot go further into the details of this remarkably interesting report. And here let us remark, that if all the railroad companies would give us detailed statements of their business, it would be a great aid in getting cor-

rect statistics of the resources of the country.

In order to give the reader a general idea of the advantages and disadvantages of the road, we make the following extracts from the Receivers Report, in which he is both concise and accurate. Of the road generally he says:

"The Line has advantages in its general situation, and, when in complete order, will not be a difficult line to maintain. Fuel is abundant and cheap at several points on the line, and should become so generally. And upon parts of the line, especially upon the Mahoning Division, there is now a valuable and growing trade.

Although the main line was constructed rather in advance of the requirements of the country, and the traffic upon it is generally light, yet all parts of the line run through a good country, much of which is, as yet but sparsely settled, and the local traffic from which must continue to improve; while the large deposits of coal along the centre of the main line are mostly untouched, and a valuable trade should in time grow up from them.

The Line has the disadvantage of heavier grades than the lines nearer the Lakes and its principal competitors in Ohio; and its general direction, which is from northeast to southwest, is not fairly in the course of the great traffic between the interior and the seaboard, which is rather northwest and southeast; and the line cannot, therefore, compete on as favorable terms as more direct and shorter lines for that traffic.

It should also be observed that the main line, for upwards of seventy-three miles, runs directly alongside the lines of other railways.

The Receiver says, he found the road imperfect and out of repair; but he has done much to remedy this, by applying the earnings of the road to its renewal, which he has done to the extent of \$933,645 58. With this expenditure the Receiver estimates that the road is worth \$1,500,000 more than it was twelve months before.

The following paragraphs of the report are quite instructive upon the Gauge Question:

The Ohio & Mississippi Railway has lately determined to change its gauge from the broad gauge in use on this line to the narrow gauge in general use. This change need not necessarily be materially injurious to the Atlantic and Great Western. The business of the Ohio and Mississippi is largely with the Southwest. Not much of it reaches our line, and by other companies having shorter lines to St. Louis, and by the Ohio River, the Receiver thinks he can obtain as large a share of the South-western business as now, with no greater expense.

It is, however, unquestionable that a narrow gauge line can be more economically worked than a broad gauge line, and when the very great advantage a narrow gauge has over a broad gauge in ability to connect with all intersecting lines it becomes a matter for grave consideration whether the true interests of this line do not require that it should be turned into a narrow gauge, or that it be accommodated to that business by the laying of a third rail, at least as early as any corresponding change is made by the Erie Company.

If it is true, and experience has demonstrated it to be so, that the narrow gauge is the most economical, then it ought to be adopted;

for there is no doubt it is the most convenient in its connections with other roads.

We shall close this review with a notice of some projected improvements:

Various branch lines have been heretofore projected by or in connection with this line.

THE BUFFALO EXTENSION BRANCH.

Some work on this branch has been done as projected. It seems probable now, however, that it should be constructed upon a line different from that on which the work has been done.

In connection with the trade from New England and Central New York over the New York Central Railway, and the projected International Bridge from Buffalo, and the Canada railways, it will be an important branch, but whether of importance enough to justify its construction by the owners of this line alone is doubtful.

Various lands were purchased in Buffalo for the use of this branch. About \$15,000 remains to be paid on them, but their value, even if this branch should not be built, in any event will justify the payment.

THE WESTERN COAL FIELDS OR SHARON BRANCH.

This branch extends from near Greenville, Pennsylvania, on the main line to Sharon, a distance of thirteen and one-half miles.

The road bed for this branch is in part graded. Its completion was prevented by injunction from the Supreme Court of Pennsylvania, issued on the ground that the Company had no authority to build it. The Receiver is advised that it is possible this obstruction may be soon removed. If so, the early completion of this branch is a matter of great importance. It would add largely to the traffic of the main line upon a relatively small outlay. It could be finished for seventy-five thousand dollars to Sharpsburgh, a distance of four and a half miles, from which point one hundred and seventy thousand tons of coal were last year shipped by other routes.

THE NEW LISBON LINE.

This railway extends from near Niles on the Mahoning line to New Lisbon, thirty-seven miles, through the westerly part of the same great coal basin as the Mahoning, and will be an important feeder to the main line. It is not the property of the Atlantic and Great Western Company, but of a separate corporation. The line is in part constructed, and measures are about being taken for its completion by the aid of friends of this line, which the receiver trusts may have the result. The expenditure required to complete the line would not be large, and it would bring a valuable addition to our business.

THE BEAR CREEK LINE.

Extends from Greenville, on the main line of the Atlantic and Great Western, westerly to the Mercer coal fields, about twenty-two miles. It is already graded and ready for the iron, and would furnish another valuable feeder to our line, if it could be completed. It is the property of a separate corporation.

With these extracts we close our notice of one of the most interesting railroad reports we have ever seen. The Receiver, Officers, and Agents deserve great credit for the thorough performance of their duties; and we have no doubt, that before long, the road will, under continued good management, prove very profitable.

Southern Railroad.

It will be recollected that it was proposed to raise in the counties of Kentucky, on the line of the Cincinnati, Lexington and East Tennessee Railroad, a large bonus for the construction of that road, Cincinnati to be called upon in due time for her share. At the election held, last Monday, in Kentucky, the counties interested gave their vote in favor of their levy, and \$450,000, the amount fixed by the engineer for those counties, was accordingly affirmed by that vote. It must be understood that this sum is not voted as stock, but as a bonus by these counties in consideration of the benefit accruing to them by the construction of the road. Is Cincinnati ready to take up her end of the string?—*Cin. Com.*

The above gratifying intelligence is confirmed by private telegrams and letters. Indeed, we have most confidently asserted all the time that, when the proper moment arrived, they would manfully "face the music." Now, it most unquestionably rests entirely with Cincinnati whether we are to have the through connection with Southern roads or not; and as our most popular and successful railroad manager has become connected with the enterprise, and is now in negotiation for the "reserve means" to carry it to completion, we may reasonably expect, before the close of the present season, our citizens will be called upon to "put their shoulders to the wheel," and assist in giving a "hoist over the dead lift." We have little fears but that they will "come up to the rack, fodder or no fodder."

Cincinnati, Lansing and Mackinaw Railroad.

We learn that the meeting at Toledo, on the 4th inst., was a decided success. Delegates were present, representing the entire line of the proposed route. Great unanimity and enthusiasm prevailed. A. J. Hodder, Esq., of Celina, Ohio, a gentleman of great energy, and who possesses all the qualifications necessary for the position, is well known by, and has the confidence of the people of the western tier of counties, was selected to take the necessary steps to carry out fully the objects of the meeting, viz.: to construct a railroad from the Cincinnati and Newport bridge, through the above counties, to the Michigan State line, and thence in a direct line through Lansing to the Straits of Mackinaw. Mr. Hodder is expected to enlist a few citizens of Cincinnati to represent and combine the different interests alluded to in the article of our issue of the 4th, signed "Progress," in the organization of the company.—*Cin. Com.*

The above is too well expressed for us to add much to it, except that the thing is working like a "brewer's vat," and we trust will result in something more than mere effervescence. The present appears to be a sort of "special time" among those dormant interests, the success of which alone can secure to Cincinnati that prestige that she has so long been justly proud of as the "Queen City of the West."

Our Minister to China.

J. Ross Browne, American Minister to China, Chas. D. Poston, Commissioner of the Agricultural Department, and Baron Richtshefen, Geologist, were passengers. The Pacific coast press unanimously indorse Browne for the China mission, as possessing many qualifications which will assist him in rendering valuable services to the United States. Baron Richtshefen intends making geological researches in China.

The above is from the San Francisco telegrams of August 3d. The public services of J. ROSS BROWNE, on the Pacific coast, delineated in his very full and able report on the mineral resources of that region, as well as his contributions to the current literature of the day, no less than his high-toned geniality of character, have identified him with the interests as well as gained him the confidence of the people west of the Rocky Mountains, and we doubt not he will be able to give a good report of his labors in the new field to which our Government has had the good sense to accredit him. It will not be alone the material interests of the country that will be cared for, which, by the way, is at this present time of the very gravest importance, in connection with the new lines of steamships to China and the Pacific railroads, but we may also expect the most readable and valuable contributions to our limited store of knowledge of the internal policy, history, and real character of the celestials.

Col. CHAS. D. POSTON, the Commissioner of the Agricultural Department, has also been identified with the interests of the Pacific coast ever since the conquest of California, and is most admirably adapted to the position that he occupies. He is the bosom friend of BROWNE; and as this is not the only excursion that they have made together, we may rest assured there will be no unhitching of traces with this team. Whatever they do it will be for the advancement of American interests, and will add to our influence in the land of Confucius—the "Flowery Kingdom."

It is said that it has become a fixed fact that the road from London, Madison county, Ohio, to Columbus, making a paralleled and competing route to the Little Miami between those points, is to be built. It is not pretended that there is a local need of this road, but the interests west of London deem it important to enable them to share in the through business, centering at Columbus, destined for the West and South. A large portion of the route is already graded, and track laying is to be commenced immediately.

THE Erie Railway has contracted for the delivery of 800,000 English steel rails as fast as they can be manufactured, and 1,000,000 of a Welsh pattern nearly as hard and durable as steel.—[Pity, with unlimited deposits of raw material, it could not be made in this country.—ED. RECORD.]

Material Interests.

INTERNATIONAL COMMERCIAL CONVENTION.

The International Commercial Convention met at Portland, Me., on Aug. 4th, with the object of discussing freely matters that interest the commercial relations of British North America and the United States. There were a large number of delegates (about one hundred and fifty) present from New York, Boston, St. Louis, Detroit; Oswego, Troy and Niagara, N. Y.; Portland, Bangor, Lewiston, Augusta, Bath, Biddeford and Saco, Me.; Concord, Manchester and Nashua, N. H.; Montreal, St. John, N. B., Halifax, Salem, Mass., and New Hampton, Rochester, N. H.; Montpelier, Woodstock, Vt., and nearly all the other towns on the line of the Portland and Ogdensburg Railroad.

John Neal, Esq., of Portland, was chosen temporary chairman; afterwards Hon. Samuel Neville, Governor of Iowa, the permanent chairman. Progress was made in discussing the material interests of the country by Senator Corbett, of Oregon, Hon. E. H. Derby, and others.

The telegraphs to the daily press furnish us the following report of the second day's proceedings, which is of too much interest to abbreviate:

The Commercial Convention was called to order at 10:30 o'clock, and Hon. Erastus Brooks, of New York, was invited to address the Convention.

He complimented Portland, his native city, and spoke of the mortifying fact that fifty foreign steamers trade with New York, and not one American. He thought the repeal of the Reciprocity Treaty was in the spirit of retaliation, and injudicious, and he would be glad to have another made. He wished that the vessels of war on the lakes should be taken off, and commerce between the people advanced. Reciprocity was really according to the golden rule, and if governed by that the West and East would not be jealous of New York. The action of the Federal Government had stripped New York of her steam commerce, but she is not jealous of other sections. Inland commerce is four times as valuable as foreign commerce, and demanded protection as well. No one doubts the power of Congress to build light houses on the coast, yet we hesitate as to its power to improve the navigation of our mighty rivers. As a New Yorker he would gladly hail the day when railroads should be completed from Halifax to the West.

Mr. Pringle, of Michigan, from the Committee on reciprocal commercial relations, between the United States and the Provinces, made a report setting forth the advantages of reciprocity. Politically neither side has reason to object. Labor would be mutually united. A four years' trial had doubled the commerce, and since its abolishment it had shrunk to nearly the old limits. Taxation in the States can be so reduced that all differences can be settled. As to the questions of grain and cattle, the advantage of climate is really in favor of the States. The Canadian objections that the United States wish annexation are futile, as no reasonable body of men in the States seek it, except it be desired by

the Canadians themselves. The Committee presented resolutions which were adopted, calling the early attention of Congress to the subject of free intercourse with the Dominion of Canada. That no time should be lost, Congress is strongly urged to appoint a commission to frame a commercial alliance or Zollverein.

Senator Corbett, from Committee on Railroads Across the Continent, reported resolutions to the effect, that the Convention is profoundly impressed with the important changes about to take place in commercial relations by the completion of the great trans-Continental railways. The interest excited among Oriental nations, and the desire expressed by them to cultivate commercial relations with us, renders it our duty to complete those enterprises and meet them. That in the judgment of this Convention, two great Continental railways should be built; one North and one South of the great central route. That the Convention respectfully urge upon Congress the patriotic duty of rendering aid to insure the completion of these two routes. That the route to Puget Sound, affording the shortest route to a sea, promises advantages to the entire country. That the projected railway on the 35th degree latitude is of no less importance; that the Convention recommend the completion of the line from Portland to the West, to connect with the P. & A. Road, as the shortest route as well as connecting the lakes by the shortest way with the Atlantic.

An invitation was received from a committee of arrangements to take a sail down the bay on the steamer John Brooks this evening. It was accepted, and thanks of the Convention returned.

Hon. Amasa Walker, of Mass., addressed the Convention on the evils of depreciated currency.

Mr. Cain, of Rutland, urged immediate action of the Convention on the business on hand, and the importance of an evening session.

Judge Rice, of Augusta, urged the importance of hearing the opinion of the distinguished men present, and called out for Mr. Blow, of Missouri, who congratulated the Convention on the reports of the Committees made this morning. He wished that the discussion of political questions might be left out. The Convention had met to discuss the Trans-Continental Railroad. He discussed the great importance of the Northern and Southern routes.

The report of the Committee was accepted, and resolutions adopted.

Mr. Taylor, from the Committee on Lake, River and Canal Navigation, reported resolutions favoring co-operation of the United States with those States and provinces interested in the enlargement of the existing canal channels, and other improvements of the St. Lawrence, such as will admit vessels of 1,000 tons, from Lakes Michigan and Superior into the Gulf of St. Lawrence, and the Harbor of New York; also, that the great western rivers, not exclusively within the limits of a State, have equal claims on Congress, as the Constitutional authority to regulate commerce; also that a judicious system of expenditures for these nationalities should be extended to the Pacific coast as well as to the Atlantic and Northern coast.

The report was accepted, and the resolutions adopted.

Hon. J. A. Poor moved a reconsideration of the vote, adopting the resolutions on reciprocity. Laid on the table.

A British Route Across the Continent.

A Canadian correspondent of *London Engineering*, writing from Toronto, after stating "what has been already done and what is really required to form an effective route for a line of large and powerful steamers to ply between the ports of Britain and Europe generally on the one hand, and Thunder Bay on Lake Superior on the other hand," gives the following description and estimates of a projected steam navigation and railway line to the Pacific:

Westward of Thunder Bay, navigation is interrupted by the sudden elevation of the ground, which rises about 900 feet in a distance of eighty miles, or to a height of about 1,500 ft. above the level of the sea. This plateau forms the most important watershed of this Continent, and from its table lands the drainage is northward by the Severn and Nelson rivers to Hudson Bay; eastward, by the Great Lakes and the St. Lawrence to the Atlantic; and southward, by the Mississippi to the Gulf of Mexico.

As already stated, 80 miles brings us to the summit of this plateau, from which there is a regular descent for about 300 miles, when we arrive at Lake Winnipeg, an important sheet of water 260 miles long, 35 miles wide, and 628 feet above the level of the sea. Eventually the distance from Thunder Bay to the head of this lake, say, with its detours, 430 miles, will no doubt be traversed by railways, but in the inauguration of a route through this portion of the country, it is believed that about one-half of railway and the other half of improved river and lake navigation would be the most desirable. From Fort Garry, near the head of Lake Winnipeg, stretching out to the south, the west and the north, is the vast prairie and park like region of country to which allusion was made in my last. It is here that Blodgett, the American climatologist, points out 500,000 square miles of country, fit to produce everything for which the temperate zone is noted, and it is of this region that Lord Selkirk (from personal knowledge) declared, more than sixty years ago, its capability of sustaining a population of thirty million of souls. This extensive region, drained by the Red River of the North, the Assiniboine, and the two branches of the Saskatchewan, is so gently undulating in its topography, and so free from bush, that it may be traversed in summer time, for hundreds of miles, by wheel carriages without any previous road making: Sir George Simpson and a large party, with fifty horses and loaded carts, having traversed 600 miles of it in thirteen days.

From Fort Garry to Acton House, near the foot of the Rocky Mountains, a distance of 1,000 miles, a continuous stream navigation may be had through Lake Winnipeg and the Saskatchewan river, equal, if not superior, to that of the Danube; and if the route suggested by Mr. Hind (in his report on the Red river expedition), through the Assiniboine river and the valley of Qu' Appelle river, to the elbow of the south branch of the Saskatchewan, be found practicable, the distance may be reduced to less than 800 miles.

From Acton House would commence another line of railway, crossing the Rocky Mountains by the Yellow-head pass, the lowest at present known, and which has been estimated at not more than 4,700 feet above the level of the sea. Now it has been already said that Lake Winnipeg is 628 feet above the sea level, and it is estimated that, in the 900 miles of river navigation, there would be

a rise of at least 1,600 feet; so that the rise to the summit of the pass, from the commencement of the railway, would scarcely exceed 2,600 feet, which would be spread over a space of about 50 miles, and make an aggregate grade not at all unfavorable. Even this, it is contended, may be materially ameliorated by a tunnel at the summit, which, it is further stated, would neither be long nor difficult. From the summit, a descending grade of about 50 miles, with a considerably steeper pitch, would lead to the valley of the Fraser river, following which for about 300 miles would terminate the railway at or near its mouth, in the Straits of Fuca, on the Pacific shore, and thus open a route for the European and Asiatic commerce through British territory.

The following table shows the relative distances from the English Channel to various Pacific and Asiatic points of importance by this and competing routes through this Continent:

	Via Ca'd'n Channel to Miles.	Via N. Y & Pacific R. W. Miles.	Via Is'mus of Pana. Miles.
From the English			
Sandwich Islands...	8,025	9,175	10,700
Japan.....	10,125	12,800	14,750
Amoor River.....	9,759	13,700	14,400
Shanghai.....	11,750	14,000	16,300
Canton.....	12,150	14,550	16,850
Queensland.....	12,700	13,700	14,400
New Zealand.....	12,700	13,500	12,800

I will now glance at some of the estimates, which seem to me to warrant any reasonable outlay for such a route as this. For amount of traffic, I beg to acknowledge myself indebted to the paper by Dr. Cullen, recently read before the Society of Civil Engineers in London. That paper gives reasonable grounds for placing the commerce between Atlantic and Pacific ports at 8,000,000 of tons per annum. I will assume that one-fifth of this amount may come by this route, and we shall then see that the receipts herefrom would be enormous, and by comparing the costs of transport with those of any other proposed route, we shall also find that an immense saving would be effected. In making these estimates, I shall confine myself to the English Channel in Europe, and to Canton in Asia, so as to limit my remarks to a reasonable compass:

From Liverpool to Quebec, Atlantic voyage, on which provision never need be made for more than ten days' fuel, say 2,500 miles at 3½ mills per ton per mile.....	\$8 75
From Quebec to Thunder Bay, on Lake Superior, river, canal and lake navigation, including tolls, 1,100 miles at 5 mills per ton per mile.....	5 50
From Thunder Bay to Fort Garry Railway, 430 miles at 3 cents per ton per mile.....	12 90
From Fort Garry to foot of Rocky Mountains, by improved river, including tolls, 900 miles at 5 mills per ton per mile.....	4 50
From eastern foot of Rocky Mountains to mouth of Fraser river on the Pacific Railway, 420 miles, allowing for detour, at 3 cents per ton per mile.....	12 60
From mouth of Fraser river to Canton, Pacific Ocean, (coaling at Japan or some other suitable place,) 6,800 miles at 5 mills per ton per mile.....	34 00

Estimated total charge per ton...\$78 25
Say, then, 1,600,000 tons at \$78 25=\$125,200 00.

Let us now estimate the cost of the same amount of freight passing through the United States by the Pacific Railway in course of formation, and which will probably be completed within from two to three years.	
From Liverpool to New York (Atlantic), 3,000 miles, at 4 mills per ton per mile.....	\$12 00
From New York to Pacific Port by railway, 3,500 miles, at 3 cents per ton per mile.....	105 00
From Pacific Port to Canton (Pacific), 8,050 miles, at 5 mills per ton per mile.....	40 25

Estimated total charge per ton...\$157 25
Say, then, 1,600,000 tons at \$157 25 equals \$251,600,000.

If then, we deduct from this amount what has been estimated as the cost by the route through British America, we find that there would be an annual saving of \$126,400,000 over the New York route.

It may, however, be objected that it is unfair to make a comparison with the United States route, as there is a prospect of the Panama or Darien Isthmus Canal being constructed, and thrown open to the world at reasonable rates of toll. Let us then examine the probable costs on this proposed line.	
From Liverpool to Caledonia Bay (Atlantic), 5,600 miles, at 5 mills per ton per mile.....	\$28 00
Passage of Isthmus Canal and rivers, say.....	4 00
From Gulf of Panama to Canton (Pacific), 11,550 miles, at 6 mills per ton per mile.....	69 30

Estimated total cost per ton....\$101 30
Say, then, 1,600,000 tons at \$101 30 equals \$162,080,000.

Being an excess of \$36,880,000 over the Canadian line, besides the disadvantage of having to pass a large portion of the distance in a tropical climate, which must necessarily be injurious to many of the products carried, and expose the steamers to the hurricanes and tornadoes to which those latitudes are subject, while the Canadian line would lie wholly within the temperate zone.

I now proceed to make some comparisons in regard to time occupied on the aforementioned several routes.

	dys.	hrs.
CANADIAN LINE.		
2,500 miles, Liverpool to Quebec, at 10 miles per hour.....	10	10
Quebec to Thunder Bay, 1,100 miles, at 9 miles per hour.....	5	5
Extra time passing locks, &c.....	2	0
Thunder Bay to Fort Garry, 430 miles railway, at 20 miles per hour.....	0	21½
Fort Garry to foot of Rocky Mountains, 900 miles, at 9 miles per hour.....	4	4
Extra time passing locks, &c.....	1	0
From Rocky Mountains to Pacific, 420 miles railway, at 20 miles per hour.....	0	21
Days.....	24	13½
Total from Liverpool to Straits of Fuca on the Pacific—carried forward.....	24	13½
From Straits of Fuca to Canton, 6,800 miles, at 10 miles per hour.....	28	18
Allow time for changing cargoes.....	4	16½
Days.....	58	0
Say from Liverpool to Canton, 58 days.		

VIA NEW YORK.	dys.	hrs.
3,000 miles from Liverpool to New York, at 10 miles per hour.....	12	12
3,500 miles from New York to Pacific port, at 20 miles per hour.....	7	7
8,050 miles from Pacific port to Canton, at 10 miles per hour.....	33	13
Allow for changing cargoes and coal-ing.....	3	16

Days 57 0
 Say 57 days, being only one day less than estimated time by Canadian line, although at more than double the cost.

VIA ISTHMUS OF DARIEN.	dys.	hrs.
5,600 miles from Liverpool to Caladonia Bay, at 10 miles per hour....	23	8
Allow for passing Isthmus Canal, &c. 1	12	
11,550 miles from Isthmus to Canal, at 10 miles per hour.....	48	3
Allow for time lost at coaling stations	2	1

Days 75 0
 Being 18 days longer than via New York, and 17 days longer than via Canada.

These statements, I think, bear out what I have before said, that the receipts would be sufficient to warrant any reasonable amount being expended to secure this route.

The Future of English Railways.

We are indebted to Mr. Barlow, C. E. for a very able analytical examination of the Board of Trade returns of the capital and revenue of railways in the United Kingdom, from which some deductions are made, which have an important bearing on the future of railway property in this country. The railway system at the close of 1866 comprised 13,854 miles, the gross receipts from which were £38,164,354. This aggregate of receipts was derived from railways, the newest portion of which was less than one year old; the remainder gradually increasing in age until the oldest was thirty-six years old. The question which Mr. Barlow has set himself to answer is, what is the value of the annual growth of traffic and the proportion which it bears to which may be termed the "primary" value of railways. Taking the mileage and receipts, as supplied by the Board of Trade returns, for the last twenty years, a careful analysis shows that, taking the year 1846 as a starting point, the receipts may be represented at £1,200 per mile as the primary value of a new line, and 1-12th part of that, or £100 per mile, as the growth of traffic. The sum given as representing the growth of traffic is of course liable to some fluctuation due to the external causes, such as the American war, cotton famine, and other causes; but the average is sufficiently near for all purposes of calculation.

An examination of the returns shows that during the last 20 years there has been without any exception a gradual decline in the growth of traffic per mile per annum. In 1846 the growth was £141; in 1866 it was only £97—the rate of increase being considerably below the rate of increase shown in the imports and exports of the United Kingdom during the last ten years. The newer railways have not in fact been so productive as the older ones, a fact due to the construction of so many ill-considered extension and competing lines, and the great cost incurred on some metropolitan and other very expensive works. The greater number of new railways, as Mr. Barlow points out, are "minor competing lines of little real traffic value forced upon

other companies, and taken up by them in order to prevent the assumed loss which would arise if they fell into other hands. It is doubtless due to the large proportion of these inferior lines that the extension in length of the railway system of the country produces so small an average return upon the money invested in it, and it is to the curtailment of this extremely unprofitable expenditure that attention is mainly required."

A further head of the inquiry is the cost of the rolling stock required to conduct the traffic. The total cost of the rolling stock of railways is about £37,000,000; the average gross receipts for the last six years were £32,754,000; the gross annual earnings may be taken therefore at about 9 10ths of the cost of the rolling stock. The mean cost of the engines in these six years was £6,990, giving as average earnings for each £4,683, or allowing for non-effective engines, about £5,000 per annum.

The cost of stations constitutes another head of inquiry. The expenditure for stations and sidings is estimated at £87,978,000, and this, divided by the mileage, gives the average cost of stations per mile about £6,000. Taken approximately, we thus arrive at the following results:

Cost of railways per mile.....	£25,140
Cost of stations per mile.....	6,060
Cost of rolling stock per mile....	3,030

Total cost.....£34,230

Now the capital expenditure upon railways is made up of two elements, one depending upon the amount of traffic, the other upon the extent of railway. It is with the first of these that railway shareholders have now to deal, and it is upon this that the future of dividends must depend. The closing of capital accounts is a matter which, if the present want of confidence in railway property is continued, must sooner or later, by sheer force of circumstances, be brought about. What will be the effect on future dividends it is by no means difficult to foresee, though the extent to which they may suffer will differ very materially according to the circumstances of each individual line. Increase of traffic requires increased accommodation at stations and sidings, and additions to rolling stock. The £100 of increase in mileage receipts which we have taken above as the average of the last few years, has been obtained concurrently with a large increase in the extent of railways, a large proportion of which has not yielded its fair proportion. The growth of traffic is always tending to increase the average mileage receipts; the construction of new lines tends to reduce them. We can not go on at the rate at which we have been making new lines without seriously endangering the position of railway property. With the enforced cessation of new and competing lines, and the abandonment of those not required for the public interest, the growth of traffic will speedily overtake the figure at which it stood some twenty years since. But with this increase there exists also a constantly recurring expenditure, for increased station accommodation and rolling stock. For what source is this to be provided? Is capital or revenue to bear the growing charges incident to these causes, and the additional expenditure which will be required as the railways advance in age? The average age of our railways is now about fourteen years. Will the cost for renewals be greater or less as they advance in age, and is their depreciation sufficiently provided for by the funds set apart out of revenue? These are questions which have a

most important bearing on the future of railways, and the figures which Mr. Barlow has put forward will be found useful in aiding directors, managers, and shareholders in forming an opinion on the subject.

It appears that the expenditure of capital which depends upon or varies with the amount of traffic is equal to about 3½ times the gross annual receipts. If then the annual increase of traffic upon a mile of railway is £100, and the cost of providing rolling stock or station accommodation for that increase is 3½ times the annual value, there will be an expenditure of £350 per mile per annum required as long as the traffic continues to increase at this rate.

A very important question arises upon this state of things; it is one upon which some definite understanding should be come to, and should not be left to be treated as expediency or a consideration of temporary interests may dictate. The figures given by Mr. Barlow will prove of great value in any discussions upon this matter. Taking the average of the whole railway system of the country, we find that the capital per mile has been:

Ordinary capital.....	£16,475
Preferential and debenture capital....	18,307

Total capital.....£34,782

The receipts and disbursements upon this capital may be taken as follows:

Gross receipts per mile.....	£2,754
Working expenses per mile.....	1,358
Fixed payments in preference and debentures.....	915
Dividend on ordinary stock above 3 per cent.....	481

Having these data to go upon, let us now see how railway dividends will be affected according to the decision which may be arrived at for the payment of additional rolling stock, or extended station accommodation called for by increased traffic. An expenditure of £350 is required to provide for £100 a year of additional traffic. Supposing this to be paid out of revenue, we should have the following results, founded on the figures given as above:

		Plus.	Equals.
Gross traffic.....	£2,754	£100	£2,854
Working expenses...	1,348	49	1,407
Interest on preference and debenture stock.....			915
Increased cost of stations and rolling stock.....			350

Total.....£2,672

Leaving available for dividend £182, which, upon the ordinary stock, amounting to £16,475 is equal to 1.1 per cent, instead of 3 per cent. shown as the present average on the whole ordinary stock. The effect would, therefore, be to reduce the existing rate of dividends nearly 2 per cent., or, in other words, to increase the working charges from 49 to 61 per cent. But this would only apply to the first year of the expenditure, as after that time an increase would take place at the rate of £51 per mile per annum. Assume, on the other hand, that the money is borrowed, or raised by preference stock at 5 per cent., the £481 at present available for dividend would be increased by about £33 per mile per annum. But this increase would be purchased by the charge in perpetuity of 5 per cent upon the new capital introduced; and unless great care and judgment are exercised in the expenditure of the new capital, the returns will not exceed the average of 3 per cent. already obtained. The conclusions at which Mr Bar-

low arrives are completely in accord with the views which we have expressed in this journal—that the judicious and well-considered expenditure on rolling stock and stations for the increase of traffic yields an immediate and very profitable return on the capital so invested, while that absorbed in the construction of new lines presents a much less favorable result. As a check upon unnecessary expenditure, we think it would be advisable as a rule to charge outlay upon works and stations to revenue. The general adoption of this principle would no doubt very seriously reduce the dividends, and its practical effect would for the time be injurious to railway property. But as in practice no theory or principle can be rigidly applied without operating unequally, directors might, under certain special circumstances, to be fully explained to the shareholders, ask for and obtain the power to charge some proportion of the cost of increased stations and rolling stock to capital, leaving the other to be provided out of revenue, or the expenditure might be met out of the earnings, charged over a number of years. Assuming the correctness of the figures given above, and that the expenditure under these heads is equal to three and a half years' revenue, then, if the cost were spread over seven years, there would be no diminution of dividends, and if ten years, there would be a small increase from the new traffic available for dividend. The appropriation of the charges consequent upon increased expenditure is one of the great questions of the day as affecting railways, and it is one which should be set at rest as speedily as possible.—*London Railway News.*

The Ontario and Huron Ship Canal.

(From the Oswego Advertiser.)

Gigantic as are the proportions of the grand scheme of uniting the waters of Lake Huron with those of Lake Ontario, by a ship canal of the largest dimensions, a measure so gigantic in conception that practical men, to say nothing of timid ones, have looked upon it as chimerical, it now bids fair to be a reality in a no distant future. Its practicability has been demonstrated by the most reliable engineers, and the whole thing has resolved itself into a question of money—of muscle, and we are happy to believe that the "needful" is in a way to be realized. The estimated cost of the work is \$40,000,000. It was proposed to raise \$20,000,000 of this in the United States and \$20,000,000 in England. Those loans were to be secured by a grant of ten millions acres of land by the Canadian Government.

Mr. Frederick C. Capreol, of Toronto, who seems to be a man of indomitable pluck and perseverance, is at the head of the organization, and has been for a year or more in England, pushing the measure with individuals, whose co-operation is indispensable, and his success is most flattering. The Toronto papers publish a portion of the correspondence between Mr. Capreol and distinguished financiers and engineers of England, all of which are of the most promising tone. He seems to have inspired the confidence necessary to secure their earnest co-operation.

Regarding Mr. Capreol's success, we learn from the *Telegraph* that last summer the undertaking was brought under notice of certain American capitalists and they were so favorably impressed with its importance and so satisfied of its feasibility that they gave

him a guarantee that they would raise one-half of the amount necessary to complete the work, provided English capitalists could be induced to raise the other half. Mr. Capreol now holds a properly executed document from those American gentlemen, by which they agree to raise \$20,000,000 on the terms stated. During the last few months Mr. Capreol has been in England attempting to enlist the co-operation of the capitalists of that country, and our people will be glad to learn that his prospects of ultimate success are in the highest degree satisfactory. The question having been raised as to the possibility of making the canal, several leading engineers of England were consulted, and they gave it as their opinion that the work was quite feasible, and that Mr. Capreol's estimated cost was apparently over what it would actually amount to. After several months' absence in England Mr. Capreol intends shortly returning to Canada, for the purpose of furthering the interests of the enterprise there, and it is to be hoped he will receive that real encouragement at the hands of all parties of which he is so eminently deserving.

The only thing now lacking to put the work at once under contract is the grant of land by the Canadian Government.

On Mr. Capreol's arrival he will undoubtedly address himself to that work. So great must be the benefits to Canada from the success of the measure that it is not believed that the Canadian authorities will hesitate to make the necessary grant, especially as it would be the means of opening up a tract of country as large as the average of European empires to speedy settlement.

The Oswego and Albany Ship Canal.

(From the Auburn Daily Advertiser.)

The idea of a ship canal from Oswego to Albany is a grand one, and may some day be realized. It contemplates the enlargement of the Erie, 85 miles, from Albany to Frankfort, thence through Oneida lake, the summit level, then along the Oneida lake outlet, and the Oswego river, to Lake Ontario.

From Frankfort to the head of Oneida lake is 40 miles—making that point on the Oneida 125 from Albany—that lake giving to the ship canal an abundant supply of water. Then comes the entire length of the Oneida for the canal, and, finally the outlet of the lake, and the Oswego river, or a distance of sixty miles on which nature has done for man the principal portion of the work. This distance of 40 miles, from Frankfort to the Oneida, would be through a level country requiring neither embankment, aqueduct, nor culvert. But to make the lake a feeder of the canal, east of Frankfort, would require excavation 35 feet deep. But after that come the 60 miles by lake and river to Ontario, already almost completed by nature to the hand of man. And then from Oswego to the western end of Lake Ontario—but little less than 300 miles by rapid steamer instead of slow canal—a vast advantage for transportation.

When the Pacific railways open a direct passage from the great lakes to the Pacific, and thence to China, and those great avenues of commerce become overburdened with their rich freight, as eventually they will be, as surely as the camel commerce across the desert built up great cities at its back, and kept the caravans in motion, such thoroughfares as the Oswego and Albany Ship Canal will be urgently demanded; and it is not too

soon to begin the examination of the different plans proposed.

This project seems to be a good, and not expensive one, to make sure of having the vast current of eastern and western commerce pass through our State, our grand lakes, our canal, our Capital, and our great metropolis. With such a work, and the Niagara Ship Canal completed, the Empire State would be, in spite of all other States and nations, the commercial empire of the world.

PITTSBURG AND CONNELLSVILLE RAILROAD.—We learn that the \$2,000,000 loan of the Pittsburg and Connellsville road has been all taken, the Baltimore and Ohio Company having taken the last \$200,000 on Saturday. This being the case, there is nothing further to impede the progress of this great and important work. Engineers are now on the line, resetting the stakes, the work at the tunnel is being prosecuted, and soon the entire road will be under contract. It is understood that the work between this city and Sand Patch tunnel will be vigorously prosecuted at an early day, and that no time whatever will be lost. We hope this may be the case, as there are large tracts of fine timber and coal lands which would thus be opened up to market, and we would experience a general improvement in all branches of business, as Cumberland must necessarily be the base of supplies—*Cumberland (Md) Civilian and Telegraph.*

PROPOSED INCREASED RAILROAD FACILITIES.—Among other advantages to be gained by the traveling community in the consideration of the railroad companies between Washington and New York city, and in the appointment of Wm. Prescott Smith, Esq., as Superintendent of the entire line, we mention the following, which, it is stated, will be immediately put into operation: In the first place, we understand the present disagreeable system of exhibiting tickets for each section of the route to a new conductor every few miles, is to be abolished, and a through conductor placed in charge of the through cars, who will take up the tickets at starting, and be accountable to the different companies for their just proportion of the fares. Then new and superior sleeping cars and ordinary cars, with head rest seats, are to be placed upon all night trains, and we believe the family or compartment cars are also to be introduced as early as practicable. Last, but not least, the time between the two cities is to be shortened to eight hours. The night trains will leave each point about two hours later than now, and arrive on, present time or thereabouts, thus giving the passengers a good evening in either city before starting. The noon trains will also start later and arrive as now, while the morning trains each way start on present time, or nearly so, and arrive about two hours earlier. Other minor comforts are to be introduced, which, with the reforms noted above, will go far to make the passage tolerable, and will cause a universal vote of thanks to be rendered to Mr. Smith by the traveling community.—*Washington Intelligencer.*

A RECENTLY published book on "The Natural Wealth of California," contains some interesting statistics as to the productiveness of several noted gold mines. The total production of the Hayward mine in ten years was \$3,725,000. The quartz raised monthly now is 1,800 tons; the average gross yield is \$20 04 per ton; the expense \$6 04, and the

net yield \$14. The total monthly product for 1867 was \$36,000; the net earnings for the year, \$302,400; the net estimated value of the ore in sight at the end of the year, \$840,000; the total vertical depth of the deepest workings from the surface, 1,049 feet. The gross yield of the North Star for four years ending December 31, 1866, was \$842,000; net earnings for five years ending June 30, 1867, \$375,000. For six months ending December 31, 1867, the yield was \$110,545 84, and the profits \$20,000. The Eureka mine, at Grass Valley, in the year ending September 30, 1866, took out 11,375 tons of quartz, the average gross yield per ton being \$45 83, and the expense of extraction and reduction, \$13 75. The production of the year was \$521,431 41; the total expenses, \$192,648 44; the net profit, \$327,782 77. For the year ending September 30, 1867, the total gross yield was \$585,316 10; the total net yield, \$348,102 37; average gross yield per ton \$48. The Banner mine at Nevada, in four months ending December 31, 1867, produced \$67,512 72, the quartz averaging \$23 74, and in three years ending at the same time, yielded \$207,949 66, an average of \$20 34 per ton.

THE GROWTH OF MILWAUKEE—*The Milwaukee Wisconsin* says: "The new City Directory of Milwaukee, now nearly ready, contains an aggregate of 23,642 names. Evidently the list is prepared with more than usual care, and the canvass has been nearer complete than anything of the kind ever attempted here. The growth of our city has been so rapid and so substantial that the next census is a matter of much interest to all. This census will not be taken until 1870, yet meanwhile we have opportunities to judge of the increase by the census of the School Board, showing the number of children, and in this instance, by a directory, which has been made with unusual care. Heretofore these directories have been of little use in giving us figures. The population of Milwaukee, since the settlement of the city, has been as follows:

1836.....	275	1847.....	14,061	1865.....	56,641
1838.....	700	1849.....	18,007	1867.....	76,498
1840.....	1,700	1850.....	21,000	1868.....	91,563
1842.....	2,700	1855.....	30,06		
1842.....	9,666	1857.....	40,100		

"The population for 1867 is taken from the school census of July 9, the same year, and is undoubtedly accurate. The increase from 1865 to 1867 was 20,000."

THE PERSUADABLE PIG has arrived and can be seen in "*Merry's Museum*." for August. The subscription price of this sprightly monthly for young people is only \$1 50 per annum, with liberal terms to Clubs and valuable premiums for new subscribers. The Publisher will send a specimen number free to any one who wishes to form a Club. Address, HORACE B. FULLER, 383 Washington street, Boston.

The receipts of the Western Union Railroad Company, for the week ending July 31:

	1867.	1867.	Inc.	Dec.
Freight.....	\$12,366 40	\$13,201 21	.....	\$634 81
Passengers	5,667 20	4,122 35	1,544 85	.....
Express and Tel.	330 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....

Totals..... \$18,958 60 \$18,019 56 \$1,574 85 \$634 81

Receipts from January 1 to July 31:

1867.....	320,519 06
1868.....	\$322,810 85

Increase..... \$62,291 79

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COUPON TICKET CASE.

BACON'S PATENT'S

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2 3/4 inches in width, and under. For Tickets over 2 3/4 inches in width.

SIZE NO. OF FORMS.	PRICES.	SIZE NO. OF FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 256	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D. & D.M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

B. E. SMITH, Pres't, C.&I.C. Railway, Columbus, O.
J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indiana, Aug. 2, 1886.

THE

STEAM SYPHON PUMP

IS THE

Most Simple, Effective and Durable Device for Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Day Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

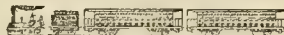
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts. Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

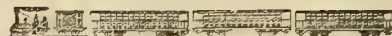
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front be East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

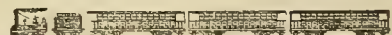
2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

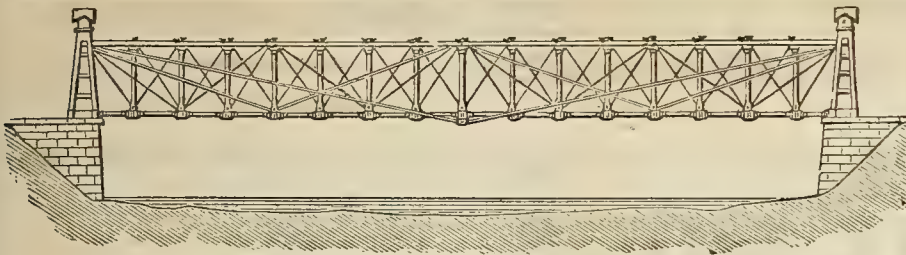
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. 10th and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

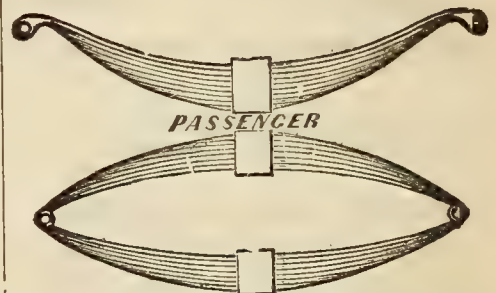
MACHINERY OF EVERY DESCRIPTION!

68 Broadway, New York,

121 West Front Street, Cincinnati.
330 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL!

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	" "
Arrive VINCENNES,	5 15 "	6 35 "	" "
Leave " "	5 20 "	6 40 "	" "
Arrive ODIN,	9 35 "	10 30 "	" "
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago
INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

 Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North-west and South-west.
5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.50 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

 Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.
 Leave Arrive.
 Lawrenceburg Accommodation..... 10.10 am 8.35 am
 Connersville and Cambridge City..... 4.00 pm 9.15 am
 Lawrenceburg..... 4.45 pm 2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

 J. F. RICHARDSON, Superintendent.
 F. B. LORD, General Ticket Agent.
MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, with instructions for applying them.

 MOSELEY & CO.
 Boston, Mass.
EDWIN J. HORNER,

[Successor to

McDANIEL & HORNER,**Locomotive and Railroad****CAR SPRING MANUFACTURER,****Wilmington, Delaware****FREEDOM IRON COMPANY,**

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

 JOHN ELLIS, President.
 WALTER McQUEEN, Sup't.
PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c.,
Gas Works Castings, etc., etc.
PHILADELPHIA.
 STEPHEN MORRIS, CHAS. WHEELER
 THOS. T. TASKER, JR., S. F. M. TASKER
 HY. G. MORRIS.
Philadelphia, Wilmington & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY****TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY**
 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.
 On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

S. D. MANSFIELD,
T. WRIGHTSON.

Editors

CINCINNATI:

THURSDAY, AUGUST 13, 1868.

THE RAILROAD RECORD.

PUBLISHED EVERY THURSDAY MORNING.

BY WRIGHTSON & CO.

OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	6:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:0 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:00 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION		
Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Bridges and Bridge Foundations.

The discussion of the bridge question in connection with the span and height of the railroad bridge projected for the Ohio, at Cincinnati, gives rise to other questions in connection with bridges. One of these is the best mode of making the piers, for the depth of water and the want of solid foundations present, in some cases, the greatest difficulty of bridge building. We are informed that the St. Louis Bridge Company have increased the breadth of the span chiefly on account of the great expense of the piers, the cost of an increased number of piers being greater than the cost of longer spans. There is now projected the grandest bridge in the world, being no less than a railroad bridge over the Hudson River at the upper end of the Highlands. The depth of water will be 117 feet, but the greatest difficulty is obviated by the fact that the piers will rest on granite rock. This does away with all the expense and hazard of sinking piers into sand or mud.

A new process of putting down bridge foundations was noticed by W. J. McAlpine, in the *Journal of the Franklin Institute*, for February and March, which has excited considerable attention. In the numbers for June and July the subject is re-examined. The plenum-pneumatic process was first introduced by M. Fuger, a French engineer, was first applied to bridge foundations by putting down a number of tubes in groups or clusters to form a bridge pier. It was found that but one tube could be readily sunk at one time, that when too close together one was likely to disturb another. The number, therefore, was diminished, and the diameter increased. To make this kind of pier intelligible, the principle is illustrated by examples:

1. The Macon bridge on the Saone, in France. Three cast iron columns ten feet in diameter and one and a half inches thick, placed thirteen feet between the centers, were sunk from thirty to forty feet in the soil to a depth of fifty feet below low water. Above this they are surmounted with smaller tubes, and all well braced up to the bridge, on which the girders of boiler plate iron were laid. The great difficulty was in apportioning the weight to the friction of the soil and the compression of the air. After a time, in making new tubes they were made thicker.

2. The Theiss bridge, in Hungary, was built on the same principle by M. Cezanne. The columns consist of two columns, each ten feet in diameter, placed thirteen feet between the centers, each column coinciding with the track above. They were just thirty-nine feet below low water and twenty-nine feet below the soil. They were surmounted by a square shell of wrought iron thoroughly braced and filled with masonry. The spans were 136 feet and the pillars protected by ice breakers.

3. It will be observed that the principle

at the bottom of these operations is the compression of air in the tubes, which thus, in a great measure sustains it. The first method of sinking them was, after they got into position, suddenly letting the air out, which restored gravity and sunk the tube; but being very sudden, this was found to result in a sort of jump, which made it difficult to keep the column vertical.

At Bordeaux, however, at the bridge over the Garonne, by Messrs. Beaumont & Sorel, the air was left in the tubes, and the tubes forced down by hydraulic pressure. The account says, that at the Bordeaux bridge there are six piers, each formed of two columns, spaced twenty-six feet between the centers, and the sinking of these tubes occupied thirteen months, while the whole structure occupied twenty-three months in building.

4. The Russian bridges. In building the great railroad from Warsaw to St. Petersburg there were seven bridges, that over the Dwina being 874 feet in length. These bridges were all for a double track and the piers were all of cast iron tubes, protected by ice breakers and filled with cement. In these bridges the compressed air was confined to a working chamber fifteen feet high of rivetted iron plates at the bottom of the tubes. This was done to prevent leakage above. Each pier of the Kowno bridge consists of four such columns eleven feet in diameter and thirty-nine feet below low water mark. These piers were sunk in 1861, and have stood well since, although the ice in the Nieman forms very thick.

5. Caissons. The bridge over the Rhine, at Kehl, was built on an improved pneumatic process. The sand, gravel, and silt of the Rhine went down fifty-five feet below low water mark, and was, therefore, very difficult to lay a foundation. M. St. Denis, the assistant engineer, proposed and carried out a different plan. It was "to sink the whole pier of masonry to a depth of sixty-five feet below low water mark by undermining and excavating under it during the process of building, in an inverted plate iron caisson filled with compressed air, which should support the masonry above, and to withdraw the materials excavated through chimneys left in the pier." The foundations next the shore were 77 feet by 23, and the intermediate piers 57 by 23. The Caissons were 23 by 19, and 12 feet high. There were three openings which were surmounted by wrought iron pneumatic tubes. We can not here describe the several parts of machinery used to adopt these tubes to the purpose of compressing air and relieving the materials, we only intend to state the general principle on which this method of laying the foundations of bridges rests, and some of the bridges in Europe where it has been applied.

For ourselves, after examining something of the principle and its applications of the last we do not believe it will be adopted in this country. Our engineers and people are very averse to

complicated machinery where it can be avoided, and this is complicated. Another, and a very great objection is that, except in a very few cases, it will be more expensive. The working of these pneumatic machines is very slow and, therefore, costly. Besides which all the workmen and engineers employed must have great skill or this machinery will assuredly get out of order.

In the article of the *Journal* we find this statement:

"The chief advantage offered by the plenum process lies in the complete command which it gives over the removal of obstacles. The process of excavating in compressed air, and of withdrawing the material through an air lock, however, is both tedious and expensive. At the Theiss bridge the workmen in the tube averaged only nine-tenths of a cubic yard per day each.

"Where but few obstacles are to be expected it may be much cheaper to employ other methods of excavation. Mr. Milroy, of Clyde, sunk tubes 8 feet in diameter 75 feet through sand without the use of compressed air at a cost inside of a dollar per yard, by the use of another and different machine. Wrought iron tubes 14 feet in diameter have recently been sunk at one of the bridges now building across the Mississippi, by excavating inside with a vertical dredge, at a cost of about \$750 per tube."

Now it strikes us that this plan on the Mississippi is far the best and cheapest of either of them. The bottom of our rivers are generally sand or silt, sometimes limestone. Now let us have a very large and strong wrought iron tube sunk in the water, and the materials at bottom dredged out by a vertical working dredge, and, if necessary, several of them near one another, and thus sunk to the necessary depth and filled in with cement; is not this, for our rivers, both an easier and a better way than that now adopted in Europe as described above? It is much simpler, and seems to us, cheaper and equally permanent. It must be admitted that European engineering makes more permanent works than we make in this country, and so did the old Romans, but we have to pass through a preliminary stage of engineering, that which erects less permanent and less costly works to be placed hereafter by more enduring structures which the wealth of the country can then well afford.

We are told that the piers of the St. Louis bridge will, probably, have to be sunk 100 feet. They will, of course, be very costly, and will afford an ample opportunity for testing the skill and patience of American engineers. We trust that such a grand work will be done in a most complete and enduring manner.

The opening of the bids for the five million contract for the completion of the Hoosac tunnel has been postponed till the first of September.

Crops—here and elsewhere—their effect on Trade.

All wealth must come from the earth, and is the result of the combined efforts of man and nature. The first prime necessity of man is food, hence food products are among the most substantial of the elements of real wealth. Next in order is the product of vines, and then the real or fictitious values in land and houses, which last are the creation of combinations of circumstances. Therefore, anything relating to the first element of wealth deeply interests us all; and just in proportion to our ability to supply the wants of other nations from the surplus products of our own labors do we, as a nation, increase in real, substantial wealth, and not by the fiction of an increased ratio of values put upon our property in hand. But if we spend with other nations more than we sell them, the balance of trade will be against us, and we must draw on our reserved funds or mortgage our property to meet it. This is just what we have been doing for some time past, and it is time that we should stop to ascertain the final result of such a course,—to see where the out-come is to be.

The *Gazette* gives the following hopeful picture of the "turning of the tide." So mote it be:

Thus far the crops in the United States have turned out well. Of hay, barley, oats and wheat the yield is a full average one—the largest that has been realized since 1860. The corn crop has passed the crisis, as far as regards growing weather, and the only danger now is from frost. The prospect at present is excellent, and with a favorable maturing season all reports agree that the yield will be larger than in any previous year. The corn crop, after all, is the great staple crop of this country, and when it succeeds the people rarely suffer; but this year, in addition to an immense yield of corn, we have good crops of all other kinds of grain. So far, well; but what about prices?

To answer this question intelligently we must know the condition of crops in Europe. We will have a large surplus for export and the prices to be realized for this will regulate values in our home markets.

Our readers have already been advised of the extraordinary drouth in England and Ireland. This, it is said, has not seriously affected wheat, which is yielding a fair average; but hay and pastures are almost destroyed, and the root crops must prove a failure. France has also suffered, and the order of the French Government suspending the duties on breadstuffs is evidence of a short crop. Louis Napoleon is always nervous on the subject of bread. Hunger promotes revolutions, and he takes care to keep down, as far as possible, the price of bread. It is certain, therefore, that our surplus of wheat will be needed in Europe; and that we shall be able to sell it at good prices.

The failure of hay and pastures in England and the shortness of the vegetable crops is a most serious disaster. The extent of this may be inferred from the shipments of hay from New York to Liverpool—a movement that is without a precedent in the history of our commerce. This, whatever may be its

effect upon the immediate price of wheat means a short supply of meat; this means a large market for American pork and beef, and this insures a profitable market for our corn in the ear, and through the hog and the steer.

Fortunately for our own people, and for the people of Europe, we are prepared to supply corn to any extent that is likely to be required. This will bring cash to the American farmer, and it will prevent starvation abroad.

The shipment of hay is a new business; but it is as important as it is new. Under our improved facilities, hay may be compressed into small compass, so as to render it not only practicable but profitable for railroads to carry it to the seaboard, and for steamers to convey it down the Mississippi. Besides, railroads can now carry it from Omaha on one side and St. Louis on the other, to New York, without breaking bulk. We shall, therefore, this year, have this traffic added to the railroad business, which will help stock-holders, while it will also open up to our farmers a ready and profitable market for their surplus.

Thus far the shipments of hay from New York have been by steam, but sailing vessels will soon be brought into requisition.

Next, the cotton crop promises well, and will, in all probability, yield over 3,000,000 bales. With this, and the exports of other products which are certain to be large, we ought to be able to keep our foreign trade balance on the right side of the ledger.

While, therefore, business men have been feeling discouraged by reason of the general stagnation that has characterized trade for some time past, we are now, apparently, on the eve of a marked change. With good crops, good prices, and a heavy foreign demand for all our farm products, we shall, certainly, have an active and satisfactory trade.

Paris—its Railways and Improvements.

The Editor of the *U. S. Mining Register*, THOS. S. FERNON, Esq., is making "a tour of Europe," and furnishes the results of his observations in a series of instructive letters to his paper. Thirty years ago, it was a "big thing" to be able to say that "I have seen London and Paris;" now, however, it is nothing, and "everybody" that pretends to be "anybody" must at least have made "one trip to Europe," or else be "counted out" of the *bon ton*. Indulgent and economical Papas, and ambitious Mamas, whose scions were only "half baked in the shell" receives the maximum of their pleasures of life from the fact that our "John" has seen the Queen's grandchild, or Eugenie's lap dog, although not a single idea or ray of new thought has been able to penetrate their cranium during their absence, that can be turned to any advantage to either themselves or others. Such is the general result of "European travel." It is refreshing, to find that, once in a while, a really observant and thinking mind, mingles with this "giddy throng" and gives us "jottings by the way side," as full of "real picture scenes," as are the letters of Mr. FERNON. The readers of the *Register* will evidently have no cause to regret his

absence, as the fund of information that will be thus acquired and distributed, is of that practical and concentrated form that cannot fail to instruct. Of Paris and its railroads he says:—

In Paris everything can be seen, hence all strangers can be gratified; the savant, the connoisseur, artist, author in rhyme or prose, student, general reader, every body given to intellectual avocation or pastime will find in Paris vast collections and aggregations of books, sculptures, paintings, coins—arrays of works of grand masters in authorship and the arts, ancient, intermediate, modern. On the other hand, the fashionable, the gay, the thoughtless, who pursue life for the pleasures found in its sights and shows, become intoxicated with Paris, and make it the scene of folly even if in the ordeal they escape ruin.

In its railroad economy Paris is well accommodated, having eight terminal depots of cheap and easy access. Of the six railway companies which own and operate the iron mileage in the empire, five have lines radiating from Paris to the seaports and frontiers; so that Paris in verity is the focus of the railway system of France—a circumstance of importance to its trade as well as the military consideration involved.

In France the government exercises jurisdiction over railway fares and rates. And for aid extended to railway companies, usually by guarantee of interest on bonds or dividends on shares, the government compels the railway companies to contribute to a sinking fund an amount sufficient to extinguish capital and debt by a certain date, whereby, if the policy be adhered to and the logical sequence be realized, the government, at the end say of 99 years from time of guarantee made, will become owner of the lines, freed from debt!

The cars in use in France, like those in England, are divided into compartments, and carry classes of passengers at high and low fares. In England, however, I did not observe any second class cars that were two storied—a kind daily seen running in and out of Paris, and on *fete* days swarming with human beings, notwithstanding there may be as many as twenty passenger cars in a train. The locomotives—which show their efficiency by the immense trains they haul—are entirely devoid of external ornamentation, being black and sombre-looking and destitute of bright metal.

The business of the railways which enter Paris is, I should judge, mainly in passengers, the goods trains being neither so many nor so long.

All confusion in starting trains is avoided by a rule requiring that a passenger with luggage must be at the station ten minutes, and without luggage five minutes before starting time, else he cannot go.

A very significant railway in Paris, to a stranger, is a double track steam-power road just within the line of fortifications which surround the city, measuring an irregular circle, twenty-two miles. The rampart, faced outwardly with stone, is 33 feet high, with a ditch in front 49 feet wide. No building can be erected within 750 feet of the ditch. Outside the wall are seventeen forts crowning the heights around the city, Mount Velerien being the most extensive and commanding.

Paris also contains subterranean ways called sewers, which in some places are canals with footways along the sides, in other places drains with arches so high that cars are put over the water way and used to forward persons and things from one portion of the city to another, *underground*.

However much of contingent military use may be provided for in the plan of the sewerage system of Paris with a view to underground transport of troops from one garrison to another, certain it is that the drainage of Paris is now well attended to.

The pavement in Paris—carriage ways and side walks—are in many places laid with asphaltum, which, although in these hot days slightly impressible to the foot, look well and seem to wear well. In putting down an asphaltum pavement no fire is built in the street; the apparatus employed is in shape of a locomotive boiler, with fire box under one end and a smoke stack in the other end; and as the apparatus is on wheels, it is portable, and horses draw it from place to place.

The General Depression of Trade.

The inactivity of trade experienced throughout the United States is but a counterpart of what exists in nearly every commercial country. A deep rooted depression has set in everywhere, enterprise being held in check and prosperity a rare exception. There is no real distress, labor being, as a rule, fairly employed; yet industry nowhere exhibits energy or offers inducements to an expansion of operations. An universal dearthness renders commodities and manufactures costly of production, and makes it impossible to market them at an average profit. Wealth, therefore, accumulates slowly and is not readily drawn into productive enterprises. As a natural consequence of these discouragements, money is returning from active circulation into the banking reservoirs and seeking temporary employment at unusually low rates of interest. On the continent of Europe, and especially in Germany, the plethora of idle funds has induced an active demand for securities; which again has produced a more or less extravagant speculation. It is the protracted prevalence of this commercial depression that has opened a market in Germany for fully \$500,000,000 of our bonds, and which is now inciting railroad and other enterprises of a speculative character. The Governments of Europe, weakened by late wars, find the occasion favorable to the negotiation of loans, and are recruiting their finances on easy terms. England has advanced a large amount of its idle capital for the development of India; and yet there are now proposals on the market for foreign and colonial loans amounting to £20,000,000 sterling. In our own market money is lending at unprecedentedly low rates and the special facility of borrowing has induced large speculative operations by capitalists, resulting in unnaturally high prices for stocks and bonds.

This industrial and commercial depression and its reflex results upon financial operations are the product of very obvious causes, the proper understanding of which will contribute materially to the remedy. In truth, we are in the midst of a reaction from a widespread series of wars, the effects of which are felt by all countries having commercial relations with each other. Scarcely had Europe recovered from the injury of the Crimean war, when a struggle broke out in Italy, resulting in a large loss of life. Then came a civil war in the United States, which has retired permanently from the ranks of labor fully one million of our ablest producers—an enormous per centage of our productive population. Contemporaneously a bloody struggle occurred in Mexico, which has cost France heavily, and rendered Mexico a nullity in the

commerce of the world for years to come. Next, came a brief but terribly severe struggle between Austria and Prussia, in which the needle gun made sweeping havoc of human life, the loss to the belligerents being far greater in men than the material of war or the destruction of property; nor are we to overlook the injury to Holland from the Schleswig struggle, which was the first step toward the German contest. More recently, we have had the Quixotic Abyssinian exhibition, costing England £10,000,000; and finally the South American war, which has caused much loss of life, and may entail the most serious injury upon the trade of the Argentine Republic and Brazil.

The injury to commerce growing out of this seven years of ceaseless hostilities is incalculable. An immense proportion of the population of the civilized world has been kept under arms, and literally millions have been slaughtered or so disabled as to become a burthen to the community. While production has been curtailed to a very material extent through this severe thinning of the ranks of producers, and industry has been diverted to the construction of stupendous navies and the production of a thousand new appliances of warfare, national debts have been augmented and the burthens of taxation made more oppressive. The fact to be most prominently noted, in connection with these causes, is that they have very largely reduced the proportion of producers to consumers in both the Old World and the New. The natural result of this condition of things would be to exact an increased amount of labor from those laborers who remain, and to compel some to become producers who had been non-producers. Most unfortunately, however, the former of these results has not been realized. By one of those perverse freaks which often deprive society of a much needed relief, the working classes have organized influential combinations for exacting unnaturally high wages, and, still worse, for curtailing the hours of labor; so that factitious restrictions have been imposed upon production, and the cost of products has been unnecessarily increased.

Under such a condition of things is it a matter of wonder that for three or four successive years we should have suffered from short crops? Is it not rather a marvel that we have not been afflicted with famine? For three years the world was deprived of the American cotton crop, and compelled to substitute more costly materials at high prices; and even since the war we have not been able to supply much more than half the average crop. The reduced supply of grain and of cotton, the great staples of food and clothing for the masses of the world's population, has laid the basis for higher prices for all other products, while that effect has been enhanced through a reduced supply of labor for every branch of industry. The consequence of this diminished production has been high prices everywhere. In England, there has been a steady decline in prices since the financial crisis of 1866, the general value of raw materials and manufactures at the present time being little different as regards many important articles of commerce from that of eight years ago; but such is the commercial depression in other countries; that the moderation of prices has not induced a corresponding demand for goods. On the continent of Europe, there is perhaps a sound basis for a more active condition of business, consumption having been economised and trade placed generally upon a conservative footing; but the tendency to recuperation is held in check

by a state of armed peace and the threatening attitude of large armies newly equipped, and itching to test their prowess.

These are the chief causes of the prevailing commercial depression. In our own case, they are augmented temporarily by the preparations for a presidential election involving unusually exciting issues and calculated to interfere more than usual with the ordinary course of trade. There is, however, reason to hope that we have passed the climax of the reaction. The derangement of the relations of the several branches of production is being rapidly remedied. The special dearness of certain products is inducing an increase of their production, so that an equalization of values is likely to be soon attained. It is especially hopeful that the grain crops of the world are being brought up to their old proportions; so that, if the seasons next year should prove favorable, we may hope to have then recovered average prices for food, the most important step toward the regaining of a healthy state of trade. After a long period of inactivity and suspense, trade is apt to break loose suddenly from its fears, and with a half-desperate and half-hopeful feeling rush into new enterprises and make the utmost of its resources. It would seem possible that such an outburst may occur in Europe upon the first symptoms of the abatement of beligerent purposes; and, with such a change, the United States could not fail to sympathize beneficially.—*Financial Chronicle*.

The Life of Iron Bridges.

Upon the authority of Mr. Fairbairn it may be assumed that a wrought iron girder bridge, subjected at intervals to a dynamical load not exceeding the fourth part of its powers of ultimate resistance, will be safe for traffic for a period of 328 years. This assumption is based upon the proviso that the successive alternations of strain and repose should not be repeated more than 100 times during the same day. With the exception of some country lines and rural branch railways, the number of trains of every description passing over bridges in twenty-four hours considerably surpasses the limited number one hundred. Taking the traffic during the night to be only one-third of that during the day, we may conclude that, as a low average, 200 trains pass daily over the majority of our metropolitan and suburban railway bridges, and as a maximum the hardest worked member of the bridge tribe possibly undergoes as many as 300 alternate changes of active and passive conditions, from sunrise to sunset. Adapting this calculation to our theory, we may estimate the life of the hardest worked railway girder to extend over a period, in round numbers, of 100 years.

Similarly to all theories, conditions are here supposed to exist, which in numerous instances are probably wanting. In the experiments upon a wrought iron beam, from which these results have been deduced, the dynamical load was accurately proportioned to the ultimate power of resistance; but there is no question that in some of the earlier built iron girders no such proportion obtains. Certainly the majority of wrought iron girders are in excess, so far as their strength is concerned, of the quarter ratio between their working and breaking load; but if we may judge from failures that have taken place, some are comparatively weaker than they ought to be. Unfortunately, in these experiments, with the exception of those confined to cast iron bars, in which the load applied was of a static and not dynamical character, the element time does not enter into the calculation, and the inevitable deterioration it produces upon everything ex-

posed to its influence is altogether disregarded. It is one thing to rivet up a beam and then subject it immediately in the plenitude of its strength to so many alterations of state, before the corroding action of wind and weather has the least chance of exerting its destructive power; but it is a very different affair to allow a beam, which is yearly becoming weaker, to be submitted to the passage of heavy rolling weight. In the one case the strength of the girder, so far as extraneous causes are concerned, is constant; in the other it is variable.

A difference will obviously present itself respecting the ultimate durability of cast and wrought iron girders individually. When the former fail they fail completely; there is no repairing a fractured cast iron beam, whatever shape it may possess; it is only fit for the cupola or the puddling furnace. The same circumstances do not attend the dissolution of wrought iron girders, provided they are well watched and the "first symptoms" attended to. The Menai Bridge, for example, might be replaced piecemeal, accordingly as every plate, angle iron, or other portion of it became deteriorated to an extent sufficient to imperil the safety of the structure. In this sense a wrought iron bridge is practically indestructible, since it admits of any and every degree of partial repair, and after the lapse of its first hundred years of life, may be completely rejuvenated and commence a fresh career. Lattice bridges—those constructed upon the open web system—in general afford special facilities for this process of gradual reconstruction, since a bar can be taken out and replaced without in any manner jeopardizing the safety of the remainder. The external effects, or visible appearance of the influence of time, must not be confounded with that invisible and inexplicable action that is incessantly in progress in connection with the molecular composition of the material. For similar reasons that the wrought iron girder, as a structure, can be preserved by successive reparation from the results of visible corrosion and decay, so is it also independent, in some degree, of any atomic alteration, unless we imagine the whole girder to be equally affected, and to fracture precipitately like one of cast iron. It has always been a puzzle to engineers to satisfactorily account for the sudden fracture of cast iron, whether in the form of girders, axles, or engine beams, under a much smaller strain than what they had previously borne with impunity for a long period of time. A ready and apparent, though by no means necessarily a true, explanation of the fact is that it is owing to "a change having taken place in the internal structure of the material." This is equivalent to the specious and clever manner in which members of the faculty extricate themselves from their professional dilemmas, by ascribing the fatal termination of any unknown complaint to "disease of the heart." The experiments made by Mr. Fairbairn upon cast iron bars, although interesting and valuable so far as a mere static load is regarded, present no analogy to the case of a cast iron bridge undergoing the transit of some couple of hundred trains per diem. Whatever the exact nature of the change may be, or the rate at which it progresses, until the cohesive power of the material is injured, it is impossible to assert; but we are nevertheless certain that the continual repetition of severe strains on a girder must ultimately impair its powers of resistance. In a word then, upon this hypothesis every cast iron girder is doomed to break at some time or another, and, what is worse, break suddenly, the precipitation of the passing load into the gulf beneath being the first sign of danger; this is not a very consoling reflection to a people who travel so much by rail as ourselves, but immunity from accident begets indifference, and although the

contingency is possible, yet it is of an occurrence so rare that it is out of the sphere of probabilities.

One is apt to regard the breaking down of a railway bridge in the light of a possible but very remote contingency; to believe in such an occurrence in a vague uncertain manner as an event that might, or perhaps would, take place "some day," but which at present is not worth thinking about. There is a little of the Mahometan doctrine of fatalism in all this, and although we do not exactly sit down, fold our hands, and cry "Bismillah," as the sole preparation and defence against a coming danger, yet we require it to be brought pretty well home to us before we are thoroughly aroused to action. From the experiments we have quoted it was ascertained that the strength of cast iron to resist repeated alterations of strain was much greater than what has usually been accorded to it; at the same time we have no data upon which to base the life of a cast iron girder, unless we assume it to be equal to that of a wrought iron one. It has already been shown that the facilities offered by structures of the latter description for gradual repair and actual reconstruction leave no cause for anxiety on their behalf. We are in possession of the true elixir vitæ as regards them, and all that is required is to watch the time for making use of it. On the other hand, the "first symptoms" of approaching rupture in the case of a cast iron girder cannot be perceived, and it is questionable whether the most careful and minute "surveillance," which cannot be exercised over every cast iron bridge upon a line, would be able to detect the "internal change of structure"—that invisible dissolution which precedes the visible downfall. Taking for granted, therefore, that the natural life of a cast iron railway bridge is, for a minimum, one hundred years, some of our oldest examples have about sixty years to run, supposing that they die literally of old age, and their demise is not accelerated by accidental injury.—*The Engineer*.

The Blue Ridge Railroad.

FORT HILL, June 30, 1868.

General J W Harrison, President of the Blue Ridge R R. Company:

It affords me pleasure to comply with your request to inform you in a letter of the agricultural and mineral resources of Pickens District. With beautiful scenery, delightful climate and thousands of acres of tillable lands now in forests, we only need an importation of industrious farmers, to make this, not only the garden spot of the State, but of the South. The District is watered with many beautiful streams, affording fine water power for machinery, and rich alluvial soil for agriculture, handsomely compensating the laborer, even under the present careless system of cultivation. With the importation of foreigners, we will of course attain the improvements in farming which have made sections of the North and Europe bloom like a garden. The soil and climate—both much the same as Central and Southern France—are admirably adapted to the culture of the grape and beet, which, must in the course of time, become important elements of wealth. In the present condition of society and of agriculture; great facilities are afforded for stock-raising—miles of range of pasture lands, open to all, on which sheep can be fattened all the year round, and horned cattle for nine months in the year.

Although the influence of climate and soil are sufficiently great to attract the immigrant, who desires to find a profitable and happy

home, and the moried man, who looks for delightful summer resort, still these will have but small influence in attracting capital, energy and labor to our country, in comparison with the great mineral resources, which, as yet, lie hidden and wholly undeveloped. But few attempts have been made to develop these great resources. The few, however, made with little capital and less practical or scientific knowledge, have proven remunerative and paid handsomely for the outlay. Gold, silver, copper, lead, iron and manganese exists in considerable quantities. I have also found traces of platinum and nickle, and have been informed that these abound, nearer the mountains.

Gold can be found, in small quantities, all over the County, but, as far as my observation, will only pay in three belts, which pass through the County in the North-east and South-west directions. The first and as far as tested, the richest belt, runs along the West branch of Seneca River, crossing Conneross Creek, below Kilpatrick's Mills, until it reaches the course of the Seneca, then crossing and along the East branch of Twelve Mile Creek. Until recently, but few efforts have been made to open the veins in this belt. Many thousands of dollars have been taken out of the deposits on the lands of Brown, B. Phillips, Mrs. Lorton, Dr. Lewis and others. The second belt runs across from near the source of the Conneross Creek, to the neighborhood of Walhalla. On this belt, Banker & Co. have opened a vein, about three miles from Walhalla, reported to be rich in gold, and handsome traces of silver and copper. The third belt commences in the old Indian boundary, and extends along the Blue Ridge Mountains, including the rich deposits and veins of Cherokee and Tomasee. But little attention has been given to silver, but, from several specimens I have seen, in my opinion with proper investigation, several rich veins will be discovered above Walhalla. Copper is known to exist, in great abundance, along the range of the Blue Ridge Mountains. Iron is found all over this County, but would only pay near the mountains.—These two last mentioned minerals will afford an inexhaustible stream of wealth, as soon as we are in communication with the coal region beyond the Blue Ridge Mountains. The completion of the Blue Ridge Railroad will enable us to develop these various mineral interests, and, by bringing them together quickly and cheaply, foster and encourage manufacturers.

I have overlooked, so far, the extensive and valuable beds of limestone immediately on the line of the road, not far above Walhalla. These, at small expence, can and will be opened, and this great fertilizer put within the reach of most moderate farmers.

In conclusion allow me to say, that nowhere else in the South, can the enterprising capitalists find a better, more certain, or safer investment for his money, than in this region.

The immigrant can find a cheap, profitable and peaceful home. Here is a fine climate, beautiful scenery, mountains and valleys, picturesque water falls, productive soils and inexhaustible mineral wealth. We want capital, and industrious and frugal population, and the extension of railroad facilities, to fully develop this beautiful and healthy section. In addition to the immense increase of the commerce of the State, the development of the mineral wealth alone would fully compensate for the small amount now required to finish this great railroad. Yours, &c.,

D. G. CALHOUN.

The Labor, Perseverance and Reward of Miners.

The *Oregon Sentinel*, of July 4th, gives the following interesting account of the peculiar labors, hopes, difficulties, and final reward of some enterprising Californians. Some People think that we have arrived at the zenith of our production of the precious metals; this is, unquestionably an error, and time will prove that we have not yet got even to the breakfast hour in the development of the mineral wealth of our country. The *Sentinel* says:—

Between two almost parallel forks of the Illinois river, extends a spur or dividing ridge of the mountain, with the town of Waldo on the west side, and Allen's Gulch on the east side opposite to the town, and about a mile distant. The prospectors found by observation that on one side of this mountain spur, near the summit, there was a table or bench of a few yards in width; and they thought there might be a deep mountain channel high up this spur. By further observation they found that when a deep gulch had cut transversely into this mountain and had cut the supposed channel, it had invariably been rich, while small gulches that had not reached up to the summit of this high ridge, had not paid anything. They were further confirmed in their opinion of a deep channel, by the fact that all the gold obtained in that neighborhood was heavy wash gold. After satisfying themselves as well as they could of the existence of rich auriferous deposit, they in December last, selected a spot and commenced a tunnel so as to strike the channel about two hundred feet from the surface of the ground. Working day and night from that time, they struck the channel last week, having run a tunnel near three hundred feet in length. There appears to be a large body of gravel—how much is at present unknown.

The channel has been traced for several miles. The difficulties met with by the company were such that without a large amount of perseverance the project would have been abandoned. In fact, miners around there predicted that they would never find any channel; that such a thing did not exist. For days and days the tunnel was almost suffocating with smoke. The rock was hard as flint; and after a week's work, hardly a foot had been chipped out of the solid wall of rock in their front. But these men, schooled to hard labor, patience and perseverance, worked on night and day, until now they are rewarded by a rich prospect. They say they are satisfied; that they want no more money than they can make out of their claims. The whole hill on the line of this channel is being taken up, and we may expect to see mining carried forward there on a large scale.

CUMBERLAND VALLEY RAILROAD EXTENSION.

—We understand that Major Edward Watts, Chief Engineer of the Cumberland Valley Railroad, on Monday last started a corps of engineers on the line between Hagerstown and Williamsport, for the purpose of making the survey of another route—or rather of a route avoiding some of the objections urged against the last survey by the owners of the soil. This additional survey will, we learn, be completed in a couple of weeks, when, if ever, the final arrangements for prosecuting the work will be made. Major Watts informs us that he has been fully empowered by the company, after

making such alterations in the line as are demanded by the convenience of the farmers, to definitely locate the road, pay for the right of way, and take the necessary deeds; and immediately let the work and commence operations. He assures us that his powers are ample, and that he is determined to permit (as heretofore) no dilatory suggestions from any quarter whatsoever to interrupt the progress of operations. He is fully sensible of the fact that the same power which has authorized the working of the road from the State Line to Hagerstown, for the last ten or twelve years, without interruption or molestation, will also authorize its extension and operation six miles further to the Potomac.—*Hagerstown Mail*.

Martin's Method of Producing Cast Steel.

Martin's method of making cast steel is in full operation at Mr. Verdier's works since June 11th, 1867. Two reverberatory furnaces have been built, that are capable of delivering 3,500 kilogrammes (552 21-100 lbs.) at every melting; two meltings are daily made in each furnace. The annual production is twenty-one thousand tons per furnace. The steel is analogous with crucible steel; the inventor's object was to supplant crucible steel with reverberating furnace steel; similar experiments had frequently been made during the last years, but always without result, and Martin's success was entirely owing to the use of Siemens' furnaces and the proper proportion of the ingredients composing the slack.

The apparatus consists of one Siemens' regenerator furnace, one reverberating furnace, one warming furnace for heating the raw iron blocks, as well as the iron and steel shavings, before being placed in the resmelting furnace. The manner of treatment is as follows:

After all the furnaces have been heated, the raw iron blocks are placed in warming furnaces and brought to a white heat; while in this state they are quickly placed in the smelting furnace and melted. The iron is supplied with a covering of scoria consisting of the dross of blasting furnaces and silicious sand, which is intended to prevent the escape of carbon.

After the first charge the iron and steel shavings, which must be previously heated, are added every half hour in four portions of 200 kilogr. each. Eight hours are required for the entire operation; the two hours spent in repairing the furnace are not included in this.

Between the 6th and 7th hour, when the entire mass—i. e. 900 kilogr. raw iron and 2,400 kilogr. shavings—is in the furnace, it becomes of a dough like consistency.

By this time the raw iron has given some of its carbon to the bar iron, and the mixture presents a semi-fluid mass that is neither steel nor bar iron. In order to make steel, 800 kilogr. of the cast iron, which must previously be heated, are added in quantities of 200 kilogrammes.

Through this addition a partial decarbonization again takes place, and when, during the 8th hour, the proper degree of steeling is found to have begun, the steel is tapped and poured into coquills. The mass may remain in a melted state under the scoria for any length of time without taking injury, and the tests meanwhile be quietly made.

If the steel proves to be too hard, raw iron is added; if too soft, iron shavings are added.

During the entire operation the workmen have nothing to do but keep up the fire and to put the raw iron and other ingredients in the furnace; no stirring or turning of the

mixture is necessary. The steel mixes itself just as in the crucibles, and the only important work the men perform is the preparation of the hearth of the reverberatory furnace.

The material used by Verdie in his works for making steel is firstly raw iron, made exclusively of Mokta (Algiers) ore, and iron and steel shavings of the same origin; thus only ingredients of the same kind are used. The ores of Mokta are so rich in manganese, that it is quite unnecessary to add other ingredients containing this substance.

The experiments made with the steel thus produced showed astonishing results, although it was only to be employed for making rails.

Matthien tells of one flat bar of this steel, 60 millimetres not quite two and a third inches in width, and nine millimetres, not quite one third of an inch, which was bent double *three times without tearing*, notwithstanding that it was perforated only four millimetres from the edge. From the same ingot of which this was made, tools were made and tempered which could be used very effectively against hard cast iron and steel.

One rail, under the blows of a trip hammer weighing 300 kilogr., and falling from a height of 2½ metres (98 9/20 in.) only bent one centimetre (one metre is 39 19/50 in.—one centimetre is one-hundredth part of a metre), and broke when the hammer was raised to 2½ metres.

Matthien considered the rails made by Verdie of Mokta metal, according to Martin's method, superior to those made of Bessemer metal. It cannot be denied that Verdie's modification of Martin's method makes the production of steel much more expensive than the Bessemer method, if, like at Terrenoire, he puts the iron direct from the blasting furnace into the converters.

Against this may be urged, that the construction expenses of Martin's system are less than those of Bessemer, and stand in the proportion of 0.45fr to 1.36. This makes a slight compensation for the greater expense of manufacturing.

Finally, Martin's method does not require the use of specular iron, which forms 10 per cent of the ingredients used in the Bessemer process, and costs 220 francs per ton—*Translated from a German journal for the Iron Age.*

THE TROOPS ON THE PLAINS.—From the report of the Quartermaster-General, submitted by the Secretary of War to the Senate, we learn that the military force on the Plains of New-Mexico, Montana, Dakota, Arizona, and along the line of the Pacific Railroad, comprises 5,138 enlisted men, commanded by 194 commissioned and 60 non-commissioned officers, serving along the line of the Union Pacific Railway between Omaha, Nebraska, and Salt Lake City. Along the Eastern Division of the same railway are 2,106 privates, under 85 commissioned and 26 non-commissioned officers. In Montana, on the Missouri River at and below Fort Benton, are 1,903 privates, under 115 officers, commissioned and non-commissioned. In Dakota Territory, are 5,923 privates, under the command of 236 commissioned and 72 non-commissioned officers. The total expenses of maintaining the troops in the Territories of New Mexico and Arizona during the years 1865, '66 and '67, were as follows:

	New-Mexico.	Arizona.
1865.....	\$3,310 265 28	\$731,918 42
1866.....	3,056,882 75	1,311,713 96
1867.....	1,755,460 20	872,888 09
Total, both Ter.	\$8,122,610 03	\$2,916,520 47

Improvement of the Fox and Wisconsin Rivers.

The Appleton Post heartily indorses the suggestion of a cotemporary for holding a convention at Portage on the third Wednesday in September, to take preliminary steps to procure aid from Congress for the improvement of the Fox and Wisconsin rivers, as a matter of national, not sectional, importance. The Post claims that the necessity for obtaining a cheap transit for the produce of the great North-west to tide water is imperative, and so obvious that argument is not needed in that direction. It discusses as follows the feasibility of the project:

"We already have from April to November navigation by small steamers towing barges from Berlin, on the upper Fox, to Green Bay; and during April, May and June through to the Mississippi.

"One million of dollars will build the ten locks requisite from Portage City to Prairie du Chien, on the Wisconsin. There is no lack of water at any season of that river, if properly improved, for steamers with their barges to run through full laden.

"A quarter of a million of dollars is abundant to improve the navigation of the upper Fox to its confluence with the Wolf above Oshkosh, and thus secure steamboat navigation seven and a half months at least every year.

"Let us unite to obtain this much; and when it is accomplished all unite to ask Congress to give us the one million of dollars necessary to make the lower Fox from Green Bay to Lake Winnebago a ship canal through which the lower lake steamers will pass on without transshipping to unload at Appleton, Menasha, Oshkosh and Winneconne, and at which points they will load direct for lower lake ports."

The La Crosse Republican says in regard to this scheme:

"Local interest may, and doubtless will, oppose this and all other similar enterprises, but the agricultural, commercial and military necessities of the entire country demand complete and uninterrupted communication between the lakes and the Mississippi; and it becomes a question simply of location. Every channel of trade that tends to cheapen transportation adds to the wealth of the people. Let this work go on upon the broad and liberal system of developing the material interests of the whole country. Minnesota, Iowa and Wisconsin would be annually benefitted more than the entire cost of the work; but the commerce of the lakes, and also that of the East would be greatly enhanced thereby."

Railroads in South-eastern Europe.

[From Cincinnati Daily Commercial.]

While we are pushing with might and main three great railroad routes across our continent, seeking west-ward our power and glory, and hoping by providing new highways toward Asia to heap over-full our measure of wealth, Europe is also busily engaged in hunting in an easterly direction the old seats of the world's commerce. Our trans-atlantic railroad brethren have reached in their eastern direction, Novgorod, Moscow, Czernowitz, in Galicia, Debreczin, Grosswardein and Bazin, in Hungary, (not counting the line from Czernawoda to Custendje, in Varna,) Trieste, Venice and along the eastern shore of Italy,

on the Adriatic, to the most south-eastern point of Italy. The railroads are all, without exception, much superior in construction, equipment and administration to ours.

All these points are, however, mere temporary termini. Prussia is straining every nerve to connect St. Petersburg, on the Baltic Sea, with Astrakhan, on the Caspian, and Nikolaiev and Odessa on or near the Black Sea. Hungary is equally zealous and far more active, because it works by associated free capital, while Russia labors as a Government in pushing her railroads, taking its capital, Pesth, as the great railroad center, north and north-east, toward Galicia, by the several routes called Pest-Losonez and Pest-Kasan; south-east toward Galacz, near the mouth of the Danube, through Grosswardein, Klausenburg and Cronstadt, in Transylvania. At the same time it is seeking railroad connections by extending the Pest-Cebreczin Railroad with the railroad running from Cracow through Lemberg to Czernowitz, and from thence, under construction and near completion, to Odessa, through Surzawa and Botoschani to Kishenev, in Russia, at which place it intersects with the Russian road running due north from Odessa, and already in use to Kishenev. But the most darling project of Hungary is the route to Constantinople, running due south from Pesth, and already constructed about two-thirds of the way toward Belgrade, whence the railroad is to run through Servia to Sophia, whence a branch is to be built due south to Solonica on the Grecian archipelago. The main route continues through Philipopolis to Adrianople, whence another branch is to run due south to Ednos, the main branch to continue to Constantinople. The Turkish Government has just signed a contract with ELET FRERES & Co., for the completion of this railroad within nine years, guaranteeing 25,000 francs net proceeds for each kilometer, or about five per cent. net profit on the cost; also liberal terms about right of way and use of material from the extensive forests. The same house is also to construct a railroad north-east from Adrianople to Varna, on the Black Sea.

In Asia Minor, English companies are already at work under similar liberal contracts, on railroads through Aleppo to the valleys of the Tigris and Euphrates, and the Persian Gulf, passing the site of old Babylon.

We may, therefore, count upon it as certain, that while we of the United States are opening to ourselves and the world, Eastern Asia, through our Pacific railroads and steamer lines to Japan and China, Europe is also at work unlocking Western Asia. The canal at Suez will at once give great importance to all the French, German, Italian and Turkish railroads, which reopen the Mediterranean Sea to these countries. Every part of the Mediterranean is now connected by fast steamer lines, of which the Austrian LLOYD has the best, the Neapolitan firm PERANO the second, and the French the third best steamers.

How changed Europe will look, when the Atlantic Ocean, the North, the Baltic, the Caspian, the Black and the Mediterranean Seas will all be connected by a net work of good railroads, such as they build in Europe. Will the emigrants of Germany still go west-ward, when Hungarian and Russian lands, as rich as the Mississippi bottoms, will be within three days' journey by railroad? Will Europe still be old Europe? Or won't it rather be fresher and stronger than ever?

We put these questions timidly; they interest very few of our readers.

The Knickerbocker Life.

The Knickerbocker Life, notwithstanding its old-fashioned name and conservative character, has exceeded all its competitors in growth, and, since 1865, has doubled its business annually. In the race for the attainment of the greatest comparative increase in 1867, it issued two hundred and fifty per cent. more policies than it had in force at the commencement of the year, outstripped the average of all other life companies by about two thirds, and came in far ahead of the most progressive.

The causes of this unprecedented advancement are most satisfactory to its policy-holders and creditable to its management. The Knickerbocker occupies cheap offices, studies economy in every department of its business, and depends solely upon its intrinsic merits for success. It has consequently grown exceedingly popular with both our native and adopted citizens. Much as costly buildings, elegant names, and imposing pretensions take with the masses, the insuring public, always composed of the most provident and prudent, prefer a company in the old style, possessing the homebred qualities of solidity, which has, however, at the same time, profited fully by the improvements of science and the advantages of genuine reform.

The Knickerbocker, as its name indicates, is eminently metropolitan and American in its attributes, and especially adapted to our citizens who are jealous of their personal liberty. Unlike other companies, it allows its policy-holders, without hindrance or penalty, to pursue whatever calling they prefer, and also, with the same freedom and immunity, to go and stay when and where they please in any part of the United States and Europe. Its selection of risks and medical examinations are, however, conducted with so much care and skill that its ratio of losses is comparatively very small. Although its agencies include some of the most enterprising men in the insurance fraternity, who are continually tempted, by the offer of higher commissions to desert the Knickerbocker, it never loses a good agent, because he knows well that he can get ten risks with far greater facility for this company than he can get one for those thus soliciting his services.

The Knickerbocker is a mutual company, conducted for the benefit of its mutual members, who receive its profits in the form of large annual dividends. By accepting note in part payment of premiums, it enables them to secure about double the amount of insurance they could purchase without this accommodation, and issues, at low rates, every eligible kind of policy, protected from all contingencies by the adoption of the non-forfeiture principle, and pays all its losses with exemplary promptitude. It is therefore no wonder that its policies are sought alike by persons of small means and by capitalists, as the most desirable form of investment, both for themselves and for those they wish to shield, in the event of their death, from want, suffering and degradation.

Of the important part performed by an institution of the magnitude of the Knickerbocker in contributing to the well being of society and the prosperity of the nation, an adequate conception may be formed from the fact that in 1867 it granted 10,284 new policies, averaging three thousand dollars each, insuring over thirty-one million dollars, received nearly two million dollars in premium, over one hundred and twelve thousand dollars in interest, and has, since its organiza-

tion in 1853, insured more than twenty-five thousand persons, paid over one million dollars to the families of its diseased members, and is pledged to pay over fifty million dollars to the widows, orphans and heirs of its present policy-holders.

This grand old institution was raised to its present pinnacle of excellence and beneficent usefulness by its President, Erastus Lyman, Esq., who has dedicated his personal talents, energy and influence to the work with an ardor and entire devotion which render his success as well merited as it is great. He has, however, been zealously supported by an able body of directors, and has always surrounded himself with officers of experience and integrity who have shared his enthusiasm and labors in making the old Knickerbocker what it is—one of the best, safest and most promising life institutions in the world.—*Ins. Times.*

The Progress of Life Insurance.

"The increase of life insurance in the United States during the past few years is unprecedented. Some companies have annually increased their business by one half; others have done still better; and the Knickerbocker Mutual of this city, the most progressive of all, has actually doubled its business and proportions twice within the last two years. This rapid progression is the more satisfactory because it is made by so staunch an institution, which, like its name, is synonymous with the sterling qualities of solidity, steadfastness and security. Its popularity is doubtless proportionately attributable to its abolition of the usual restrictions on travel and occupation, its helpful acceptance of notes in part payment of premiums, the division of its profits, in the shape of dividends, among the insured, and the engraftment of the non-forfeiture plan on its system.

The Mutual Life of New York is ten years older than the Knickerbocker, is still advancing, and the largest company of its kind in the World. The Connecticut Mutual, and the Aetna Life of Hartford, and the Equitable Life of this city, are following rapidly in its footsteps, and rendering the race closer and more exciting every year. The Phoenix Mutual of Hartford, although of smaller proportions than the preceding, is next to the Knickerbocker, the most remarkable for growth. The chart to which we refer, issued by *The Insurance Times*, a monthly devoted wholly to insurance, is entitled to a thoughtful examination. Vast as are the totals it exhibits for 1867, they will probably be much exceeded by those of 1868. There can be no halting hereafter in the march of life insurance. It is already a great popular fact, and is becoming a universally recognized truth. It may fluctuate, as everything in art and nature does, but in its comprehensive sweep it will doubtless be progressive for ages to come, and extend its sway to the utmost bounds of civilization."—*New York Tribune.*

BLOWING UP SUNKEN VESSELS.—*The Tribune* gives the following account of some experiments in blowing up vessels at the mouth of New York Harbor, together with a novel mode of sea fishing:—

All being prepared, the boat containing the battery retired to a safe distance, the electric spark was applied, and an instantaneous re-

sponse made. The second blast was arranged as speedily as possible, and discharged. From the commotion created, the fact that large iron plates were thrown entirely out of water, and much debris remaining upon the surface, it was believed that great success had been attained. To corroborate this belief and make it a certainty, the diver was again sent down and reported that a space had been broken from out the solid iron sides at least 40 feet in length and 20 in breadth, from which space the iron plates had been twisted and rent, laying bare the bales of cotton contained in the hold. This complete success demonstrated beyond a doubt that by the use of this immensely powerful blasting compound, this serious obstruction can be speedily removed. Such removal will of necessity require a considerable expenditure, and as there is no fair equivalent to be obtained from the wreck itself, it is very evident that unless the wherewithal is supplied, a private corporation can not be expected, at its own expense, to perform a great public good. An interesting and peculiar feature connected with the day's enjoyment was found in the fact that after each blast bushels of fish were found floating upon the surface, and while awaiting the subsiding of the waters a lively scene arose in the securing of the result of this novel method of fishing. One black fish thus secured weighed at least 18 lbs., while there were many other fish of upward of 10 lbs. in weight.

CAST-STEEL AND WROUGHT IRON BOILERS.—Some interesting practical experiments for ascertaining the relative merits of cast-steel and wrought-iron for boiler-plates have recently been made at Messrs. F. Harkort & Sons' Harkort Iron-works, at Schonthal, near Wetter, Westphalia, and the results obtained, as given in the *London Mining Journal*, were decidedly in favor of steel. The two boilers employed were used in connection with the puddling and rolling mills, and were both of the same form and size, being cylindrical, 30 feet long, 4 feet diameter, with dome 2 feet high by 2 feet wide; the thickness of the iron plates was a little over 4-10 inches, and that of the steel plates $\frac{1}{4}$ inch, and the respective weights 8,975 lbs. for the iron, and 5,842 lbs. for the steel. It was found while a pound of coal evaporated 3.20 lbs. of water in the steel boiler, it evaporated only 2.51 lbs. in the iron one. To perform the same amount of work it required in the wrought-iron boiler 28 per cent. more fuel and 30 per cent. more time. The coal used was that from Ruhrort. At the Harkort Works they have now fifteen steel boilers in use, and one of them, which is made of soft Bessemer steel, has been found to give quite as good results as the others. There was, likewise, a marked diminution in the amount of incrustation in the steel boilers, owing, probably, to the extreme smoothness of the surface; water which gave an incrustation of $\frac{1}{4}$ inch in two years in the wrought-iron boilers gave in the steel boilers an incrustation scarcely perceptible.—*Artisan.*

THE "MONTEZUMA" TYPE-METAL.—The Montezuma Smelting-works, of Humboldt county, Nevada, are shipping to San Francisco large quantities of metal peculiarly adapted for the manufacture of printing-type. It is a new product for the Pacific coast, and illustrates the progress in developing the vast resources of the country which is steadily going

on in all branches of industry. This metal is an incidental product, obtained in the separation of the silver contained in the ore from the lead and antimony with which it is combined. Its freedom from other metals generally found in these ores renders it at once perfectly adapted to the type-founder's use. The proprietors of a type-foundry in San Francisco are now using large quantities of it in the manufacture of type, and henceforward will rely upon the works of their entire supply.

The metal now being shipped from Nevada is composed of lead thirty and antimony seventy parts; but it is quite convenient to produce these metals in any other proportions, and the alloy will require only the proper admixture of other metals entering into the composition of type to be ready for use.

The type manufactured in California from this metal is much harder than that imported, and quite as tough; and will produce a clear and distinct impression upon type made in New York without being in the least defaced. This fact indicates its great superiority; and although it is apparently not so highly finished as imported type, the impression made by it is clear and handsome, and the type of much greater durability.

The price at which this metal is charged in San Francisco will, it is expected, compete successfully with Eastern and foreign importations to that market; and not only that, but most likely give them the entire supply of the Atlantic market. A shipment of some twenty tons is already on the way to New York for the type-founders of this city.

The iron foundries and machine-shops of California are also using it in place of Bab-bitt metal, as it fully supplies the place of that important composition in relieving the friction of machinery. It is shipped in pigs of about seventy pounds, and each bears the stamp of the works—"Montezuma." Within the next three months the Central Pacific Railroad will be completed to Oreana, within a mile and a half of those works; thus opening a cheap and speedy transportation for all the products of that celebrated mine.—*Artisan.*

A NEW "DUMMY."—For something more than a year past experiments have been in progress under the auspices of the Brooklyn City Railroad Company, looking to the production of a self-moving car for passenger travel on the city railways, and as the result of these efforts a new dummy has been brought out which is worked by a steam engine constructed on the plan recently patented by Messrs. Bailey & Connell, and the furnace of which is supplied with kerosene or petroleum instead of coal. The fire is started by a small bed of anthracite coal, which lasts all day without replenishing, as it is used merely to act as a sort of wick for the kerosene oil, which is the real fuel. There is a tank of kerosene at the point on the platform furthest from the fire. From this a small pipe leads to the fire, and a small quantity of kerosene is squirted in occasionally. No cinders or smoke are generated, but sufficient heat is evolved, the patentees claim, to keep up steam constantly in the engine with a very trifling expenditure of oil. Limited trials of this dummy have been successful, and if on further tests it shall meet the expectation of its projectors, the result will be to revolutionize the city traveling of Brooklyn, and save no end of passengers' time, horse-flesh, and wear and tear of paving stones.—*Artisan.*

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We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

Bills Lading,

Way Bills,

Blank Books,

AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as an establishment in the country.

T. F. Randolph,

MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

SURVEYOR'S COMPASSES, TRANSITS, LEVELS, DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO. OF NO. FORMS.	PRICES.	SIZE NO. OF NO. FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O.

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,	BANKERS,
MERCHANTS,	INSURANCE COMPANIES,
MANUFACTURERS,	EXPRESS COMPANIES,
PUBLIC OFFICES, Etc., Etc.	

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

MITH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAUREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
Aug. 2, 1885.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.00am.....	7.00pm
" Dayton.....	8.20 ".....	9.15 "
Arrive West Salem.....	1.40pm.....	4.03am
" Leavittsburg.....	4.40 ".....	7.30 "
" Meadville.....	7.05 ".....	10.15 "
" Susquehanna.....	7.30am.....	10.38pm
" Paterson.....	2.33pm.....	6.17am
" New York.....	3.15 ".....	7.00 "
" Boston.....	6.00am.....	5.00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

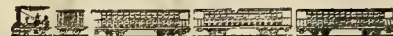
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at north-west corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1885, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburgh 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburgh at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburgh to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburgh at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburgh to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburgh at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

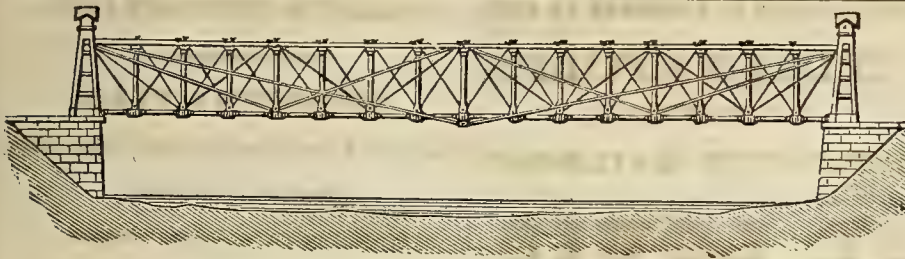
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business or which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

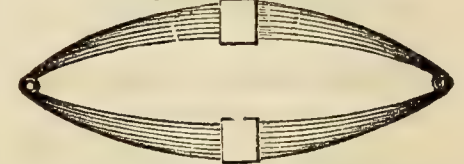
121 West Front Street, Cincinnati.
330 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; or at the Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago
INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,
 (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.10 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the L. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

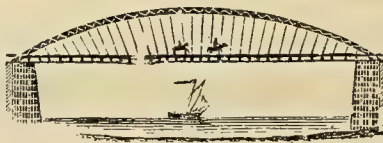
J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES. Constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

[Successor to]

McDANIEL & HORNER,**Locomotive and Railroad****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY****TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY**

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave all trains for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 6.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, AUGUST 20, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
" column, single insertion.....	5 00
" " per month.....	10 00
" " six months.....	40 00
" " per annum.....	80 00
" page, single insertion.....	75 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Cornersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Cornersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.

Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

The Cincinnati & Mackinaw Railroad.

In our last article on Cincinnati Railroads we remarked, that we should consider the Cincinnati & Mackinaw Road, in another article; strictly speaking, there is no such road completed anywhere; but, for years it has been in progress, and much work has been done on it. It is now some fourteen or fifteen years since, a pamphlet was prepared on this subject by E. D. MANSFIELD, and that, at this time occasioned a good deal of railroad excitement. It originated in the project of a small railroad got up by Mr. GUNCKLE, to terminate at what is now Carlisle Station. This was a local scheme; but on the North it might be extended indefinitely. It was taken up in Ohio, and in Michigan, and even in the extreme South. The idea in Mr. MANSFIELD's pamphlet was that, of a Great Axial Road, whose Northern terminus should be the Straits of Mackinaw, with Pensacola, Fla., at the South. Let the reader imagine this done. Then take up a map of the United States, and see what such a road would accomplish! No railroad on earth would be more important, and none promising greater results in profit, as well, as usefulness. Look at the map, Mackinaw is in latitude 46°, and Pensacola in 30° North latitude. Through sixteen degrees of latitude—in which every plant from a Tropical to the Arctic regions was grown, this road would go. On the North it touched the Great Lakes, at Cincinnati it cut the Valley of the Ohio—at Knoxville it crossed the mountain ranges, and entered the seaboard, thence, it passed over the great cotton plain, to where the orange groves bloom. It would have been some eleven or twelve hundred miles in length—and if it were made, and united in all its parts, under one management (as it ought to be), no railroad upon earth can compare with it. It comprehended within itself most of the plans for the benefit of Cincinnati, of which we have heretofore spoken. It comprehended the Southern Railroad; the Tunnel (by which a really Northern road *must* come in), and (what is hereafter to be of vast importance), a direct railroad from Cincinnati to the Northern lumber regions. We are getting large amounts of lumber now, from Michigan, in all sorts of indirect ways; by lake, canal and railroad. But we shall not speak of this now. Such was the great scheme of the Mackinaw Railroad, as proposed by E. D. MANSFIELD, in the pamphlet entitled, "Cincinnati and Mackinaw Road." It was received by public meetings in Florida, Tennessee and Michigan with great favor and interest. Cincinnati, the most interested of all parties, was the most inert. At this day, nearly *half that great line is made*, mostly in the South. But, of course, the parts are not operated together, as a part of the whole scheme; nor, *will they be, till the whole is completed*. Now, what stood in the way of this great work, which, were it completed, would be to Cincinnati more

than all things? The greatest impediment was, that Cincinnati did not understand her own situation, and that those who were willing to aid with the work, both to the North and South of Cincinnati, could not be united. The whole work would have cost forty millions of dollars; but the New York and Erie Road has cost nearly that for what is not worth half of what this would have been. The cost would not have stood in the way, if the parties in interest had understood the plan, and been united in it; but, this could not be done; chiefly because the road lay in six States (Michigan, Ohio, Kentucky, Tennessee, Alabama and Florida), and had to be made and operated by different parties, under different laws. Another great difficulty was the *gap* made by the Ohio River. But now, by the Acts of Congress and the State Legislatures, this great difficulty will be removed. We consider it morally certain, that railroads will run over the Ohio river wherever wanted. Railroads, which may with improvements, be made part of this line, are all constructed the greater part of the way, from Pensacola to the North line of Tennessee. The great gaps are in Kentucky and Michigan. We shall now look at the new line as proposed from Cincinnati to Mackinaw. This may be said to consist of four parts, viz.:

1. The Tunnel and Short Line Road to Dayton.
2. The Dayton and Greenville Road.
3. The Cincinnati and Mackinaw Road, from Greenville to Lansing (Michigan).
4. The Michigan Road, from Lansing to Mackinaw. Let us look at these:

1. The *Tunnel and Short Line*. Those who know anything about this subject, know, that the Tunnel was commenced and about one-third completed; and that a good deal of grading has been done on the Short Line to Dayton. If a Company could take them up and complete them, just as a local work, in our opinion they would be profitable, for we lay down these propositions as moral certainties of the future. *First*, we say, that the Northern Roads, coming into Cincinnati *must* sooner or later, come *through the Tunnel*, and make a Central Depot, on the upper plain of Cincinnati. Their present mode of getting in, are to the last degree, inconvenient and expensive. But for their passenger business, there is another reason of great moment. Cincinnati is going out on the hills. Half of its population is already north of the Canal, and in ten years, three-fourths will be. Are the people, who live in the Cincinnati of the future, to go miles off to the river, to hunt up a railroad depot? No. If the present Railroad Companies are not willing to remedy this matter, new men will come in with capital to do it; the tunnel will be completed at once; a new Northern road constructed; and a great depot on the upper plain, which will take away the Northern passenger business from the other roads. But

we have no time to go into details. What of the Short Line? Why, the simple fact is, that the Short Line Road is 52 miles from the Ohio river to Dayton, and the Hamilton Road is 60 miles. Not only that, but the Short Line is the best route by far, and can be run much the fastest. Let the Tunnel and Short Line be made, and a passenger can go from Dayton to the center of Cincinnati in much less time, with the same safety. The Sandusky Road made a great mistake, in not taking and completing this work; for if they had, they could have competed successfully with any line for the passengers to New York. But, this is not our business. Other men will do what they had not the capacity to do. Suppose it done. What will the Little Miami, and Hamilton Roads do to compete. *It is possible to make a line to Cleveland by that route, which will outrun either of the others.*

2. The next link is the *Dayton & Greenville Road*, which is already made, 37 miles, and can only be made profitable by being made part of a through line. This can be done, only as a part of the Cincinnati and Mackinaw Line.

3. *Cincinnati and Mackinaw Line*. This extends from Greenville to Van Wert, Paulding, Bryan, &c., &c., on the west side of Ohio, to Amboy, on the Michigan Line; thence to Lansing. We understand that from Greenville to Van Wert, is already graded, 55 miles; and that much of the material is prepared, &c., from Van Wert to Amboy, 55 miles. In Michigan, on the line of this road, some 38 miles are graded. Here, then, is already much done, and much can be furnished, on the Cincinnati and Mackinaw line from Greenville to Amboy. We are told, that this work and material, already amounting to a large capital, will be made a donation to a Company who will take hold and complete the entire line from Cincinnati to Lansing. Now, thus we hold that here is an *opening* for a most profitable enterprise, and one which will be full of great results. At Dayton, at Bryan, at Lansing, and at other points, there will be no difficulty in making ample connections and arrangements with the great lines East and North. Once made, this work will be as profitable as it is great. But, we do hold, that the completion of the Tunnel is necessary to its success. The reasons given above are convincing to our minds, and the River entrances are already clogged up with inconvenient and expensive arrangements, to accommodate a business, a large part of which ought to come directly on to the upper plain of Cincinnati. It is not our business to present more of details as to estimates for this work; but we shall notice hereafter the Michigan Roads connecting with this, and what may and ought to be done. In the great future of railroads and business, we can see nothing more interesting than the GREAT

AXIAL ROAD, which will connect the extreme North, with the extreme South, and carry the passenger at once from the regions of ice to those of the orange.

The Working Man and the Public Lands.

It has been the custom ever since the occasion of the solemn trial before Pontius Pilot, and how long before the dear only knows, to appeal to the popular ear in tones that pandered to excited passions, without regard for the real welfare or interest of those to whom the appeal is made. Such was the case on the occasion to which we have above alluded, when the People answered "His blood be on us, and on our children!" It is no less true with regard to the question of the working man's interest in the Public Lands. Now, if the schemers can devise a plan whereby the working man—the mechanic—and they are the class to whom those appeals are always made, because they are organized, and are acted upon in mass, and not as individuals—can obtain a house and lot (a comfortable home), not too far from the Post Office in Cincinnati, a positive blessing will be conferred upon the ever honest, but sometimes deceived working man.

EXTENT OF THE PUBLIC DOMAIN.

Let us divest this theory of its sophistry, and see what the real interest of the working man—the mechanic—is, in this land business. The U. S. Land Commissioner in his report for 1866, informs us that the total amount of land granted in aid of wagon and railroads at the date of his report was 157,835,794½ acres, while the amount for which certificates (or patents) had been actually given, was 20,728,128.19. This includes all the grants, except for canal, (4,405,986 acres) and educational purposes (21,645,000 acres). The whole area of the public lands at the date of the report was 1,465,168,800 acres and of which only 474,160,551 acres had been surveyed, leaving 991,308,249 acres unsurveyed, or about 33 acres apiece for every man, woman and child in the country, which by existing laws they have a right to go and take whenever they feel disposed to do so.

In 1783 the entire amount of land in the Republic was about 354,000 square miles, or 226,560,000 acres, and during the present year we have added, by the purchase of Alaska, 279,012,480 acres, which is about one third more than the entire land grants, and more extensive than the original territory of the Government. Hence, it must be apparent, that notwithstanding the pretended profligacy of Government Land Grants that the Public estate has not been diminished. In reference to this point, the Commissioner remarks that "notwithstanding the past immense disposal by sales and otherwise there yet remains undisposed of in these Territories, and unsold in the land States, acres enough to accommodate

over five hundred and thirty nine million three hundred and eighty-eight thousand inhabitants, according to the number of persons to a square mile in England and Wales, and that, too, in a country, according to a recent British writer, which is a 'boundless mine of wealth,' its 'resources inexhaustible,' with 'climate varied and delightful.'"

HOW TO SECURE A SHARE OF IT.

Now the next important question is, how can the working man secure his share of this vast and valuable estate?

1st. The Government price of \$1.25 per acre is, to say the least, reasonably low; to which may be added the advantages of the pre-emption law, enabling intelligent industry to make from the very soil itself, enough to pay for the purchase.

2d. By the homestead act, requiring only a positive residence on the land and a payment of \$10, and the customary fees of Registers, etc. Even a "working man" will not contend that this is *not cheap enough!* Under this act passed in 1862, there have been "homesteads" secured to "Working men" to the extent of 940,090½ acres, and for which was paid in fees, etc., \$105,227.03.

3rd. The "monopoly lands," the railroad land grants, how can the working man reach those? The Congress of the United States at its last session, by House Bill 767 provided "that all land which may hereafter be granted to aid in the construction of railways shall, unless otherwise expressly provided in the act granting the same, be sold by the State or Territory, corporation or company to which said grant is made to *actual settlers*, in quantities no greater than one quarter section, to any one person, and at a price to be fixed by the company which shall build the road, not exceeding **\$2.50** per acre." As to the wisdom, justice, and liberality, of this provision, we will ask the working man but one question, and that is "what is the difference in the value of the proposed farm, with a railroad running through or near it, or to have it one, two, five hundred or one thousand miles away from the means of public transit and commercial and social communication?"

The truth is, the MECHANIC does NOT want *farm land*; he wants work at his trade—steady, regular, with fair pay and cheap food; the development of our Public Domain by railroads will give them to him, and no other policy will. Hence, the real interest of the "Working man"—the mechanic—is, how to best, most fully, and at the least possible cost of means, so improve the Public estate as to secure the greatest possible production of food, and create the largest demand for manufactured goods.

In conclusion we may remark that the "Working man" gets paid for the construction of the roads, the cars, the locomotives and the *etceteras* incident to such vast enterprises, whether they prove profitable to the capitalists

or not, and secures a constant market for labor and its products in the necessities of spreading farms and growing towns and cities.— *Gazette*.

RAILROAD TO THE SOUTH.

The people of Cincinnati have not lost sight of the great interest they have in a direct railroad connection with the Southern system of roads; and we are perfectly safe in asserting that the people of the great Central South, still entertain vivid hopes of a close alliance by railroad with Cincinnati. Movements that are at present on foot, we doubt not, will secure the long cherished result. The following article copied from the *Commercial*, and written by a very eminent engineer, who fully understands and is deeply interested in the subject, is replete with interest at the present moment:—

The people of East Tennessee, North Georgia and North Alabama, a territory embracing much of the interior South, are puzzled to know why it is that this railroad, the most important that has ever been projected anywhere within the limits of our vast system of railways, is not commenced and prosecuted to completion, when the country south is holding out such inducements by way of constructing connecting lines, and offers of material aid on the trunk line, and when the country north is so much abler to furnish the means.

The people in the Central South are waiting anxiously for the completion of this road, in order that a mutual interchange of commodities may be established between them and this great center of commerce.

This interchange of products and commodities can not be effected, on the part of the Interior South, over any existing line, in consequence of increased distance of transportation and the continued discrimination of freights against them.

It has been said that the reason of the earlier failures in this movement are obvious to those acquainted with the geography and topography of the country over which it was proposed that this road should pass. A chasm of rugged and undeveloped country lies in the way, of some eighty miles in extent, which had to be bridged over before the two sections could join hands.

This idea of bridging a belt of country of eighty miles in extent, on this great line of intercommunication, carries the impression that agricultural products and other commodities of exchange, are as scarce in that belt of country as they would be on an arm of the ocean of equal extent. The impression obtained from this idea of bridging, is erroneous in every particular; a mere glance at the census of 1860, will show that these highland counties on the Cumberland chain are well up in point of development, and not one of them contains a population of less than 20,000 people.

These people are generous, and stand pledged to donate abundant lands, rich in coal, petroleum, and iron ore, to be applied to the construction of the road.

This bridging idea carries with it another erroneous impression; a rugged, rocky, undulating, or mountainous surface, subjecting the railroad to heavy excavations and steep grades. Nothing could be further from the truth, for it has been demonstrated by actual

survey, conducted by intelligent civil engineers, that a railway may be constructed over the Cumberland chain, to a full and complete connection with the Southern system of railroads, upon grades as easy as have been obtained by any one of the railways leading from Cincinnati to New York.

The following point should have the best consideration:—

1. The Knoxville and Kentucky Railroad is in active construction.

2. The Wills Valley Railroad, leading south from Chattanooga, will be put in course of construction in a very short time, this road having passed into the hands of Boston capitalists, on the 12th inst.; and some of the parties are now on the ground preparing to put the work under contract. The construction of this road will insure the construction of the Chattanooga and Kentucky Railroad, which road will intersect with the great Southern Railroad at or near the Kentucky State line. The right of way has been obtained for this latter road throughout the whole extent of the line, from Chattanooga to the Kentucky State line. Seventy-two thousand acres of land, lying contiguous to this road, have been donated to the road, together with its State bonds, giving it a very handsome capital.

3. A road is being constructed from Tallahoma via McMinnville, Tennessee, in the direction, and with the view to a connection with the Southern Railroad. This road will be extended south to Decatur, Alabama, as soon as circumstances will permit, and when fully completed it will furnish the trunk line to this city one of its very best auxiliaries.

4. Another road is being constructed from Bridgeport, Alabama, through the Sequatchie Valley via Pikeville, in the direction of, and with the view of a connection with the Southern Railroad.

5. It may be seen from the above notes that the Southern people have more interest in the construction of the great Southern Railroad than many are aware.

6. There is one thing certain, that the South will do her part of the labor, and will furnish her part of the means, incident to the construction of this road.

7. It is known that this great road will, when completed, skirt along in close proximity to inexhaustible beds of coal, iron ore and zinc, and will terminate within thirty miles of the celebrated Ducktown copper mines.

8. The people South have been solicited to withdraw their attention from Cincinnati, by propositions coming from New York, but have not been allured by any glittering generalities as yet. They are determined to have a connection with Cincinnati, if they build the road themselves.

A CENTRAL DEPOT.

In connection with the contemplated railroad lines the idea of tunneling the city from east to west is discussed. In fact, a complete system of railroads in Cincinnati is not regarded separate from a grand central depot, which is to occupy the entire sixth street market-space. According to those who contemplate this possibility, the city is to be tunneled its entire length from east to west. The southern connection, by way of the Newport bridge, would enter the contemplated tunnel some place in the neighborhood of Eggleston avenue, and all the routes exit in the neighborhood of the Cincinnati, Hamilton and Dayton Railroad depot. As many tracks as our enlarged system calls for could be laid in the tunnel, which, with the central depot, would not only do away with the running of railroad trains through the streets at either end of the

city, but allow the redemption of the railroad-cut portions for dwelling-house and manufacturing purposes. The grand central depot would become a feature and a convenience such as every citizen and traveler would appreciate the more it is seen and used.

A writer on this subject, in the *Gazette* says:

"After all it really seems that we are to have a railroad to the distant South. Surely the prospect was never better. Let every citizen of Cincinnati lend a helping hand so far as able. Let us all strike while the iron is hot."

On the first day of June last, at a meeting of the friends of the Cincinnati, Lexington & East Tennessee Railroad, held in Covington, a new Board of officers was elected, consisting of Messrs. Lord, L'Hommedieu, Worthington, Ellis, Sinton and Glenn, of Cincinnati; Shinkle, of Covington; Johnson, of Lexington, and Dunham, of Danville, with Mr. Lord as President and Mr. Worthington as Vice President. No better Board could be selected from any community, nor could any nine men command more effectually the confidence of those among whom they reside. With few exceptions they are practical railroad men, and all possess a very necessary requisite—that of being splendid, successful business men. Their own success in life is a guarantee of their ability to manage whatever they undertake.

For some time past, Mr. Green, their engineer, has been surveying the different routes, so as to be able to locate the line, providing certain counties through which it should pass, would donate, as a bonus, certain sums of money. At the recent election in Kentucky, \$450,000 of the \$500,000 asked for was voted, leaving but \$50,000 unprovided for; and this sum, being small, can, doubtless, be raised by other means, in case the vote is not retaken with better success.

This sum of \$450,000 (being a gratuity on part of the different counties), put with the Kentucky Central road, at a nominal price of some \$800,000, gives the new company a capital of one and a fourth millions dollars, and a road of one hundred and twelve miles, in good order, and well equipped. Certainly, with so good a start as this, there need be no such thing as fail. The county subscription will complete the road to South Danville, where it will meet the Louisville and Knoxville road; and by reaching this point, it will secure business sufficient to enable it to assist with the balance of the work.

With proper railroad connections between this city and the South, it is fair to claim that three-fourths of the business done between the South and the Northern States would pass this way. The Indianapolis & Cincinnati, the White Water Valley, the Cincinnati, Hamilton & Dayton, the Atlantic & Great Western, the Little Miami, the Cincinnati & Zanesville, and the Marietta & Cincinnati Roads, with all their branches and continuations, are deeply interested in having a direct route to the South. These corporations are able to assist in doing the work, and are doubtless ready, when proper occasion shows itself.

The Newport & Cincinnati bridge, as proposed, offers another great inducement for all the Northern as well as Southern lines to concentrate at this city. If but one bridge is built, it can accommodate all, but, very probably, rival companies will insure the building of another. But, aside from what aid may be obtained from the various railroads centering here, along with that furnished by the vari-

ous towns and counties in Kentucky and Tennessee, through which the road may traverse, the city of Cincinnati will be called upon to assist in the great work. It is a matter of vital importance to us that we have communication with more territory. We are crippled by the trade of first class cities within one hundred miles of us, in every direction, except toward the South."

It will, of course be urged, that this is all very well, but it does not build the road. True, but shows that everybody is not asleep, and that there is a depth of feeling in reference to the Southern road that will count in the right way, when a proper channel is given for its expression. This will undoubtedly be opened upon the return of H. C. LORD, Esq., the President of the Cincinnati, Lexington & East Tennessee Railroad.

THE MAGNOLIA DISASTER.—Charles B. Lewis, the local editor of a Michigan paper, and the gentleman who was blown up on the ill-fated steamer Magnolia, has commenced suit in the Court of Common Pleas of this county, against the proprietors of the boat, for the sum of \$30,000, which he claims as damages for injuries sustained by him in that explosion. He has been crippled for life, and suffered much disfigurement.—*Commercial.*

We are glad to see this announcement. It is time that the question should be fairly tested before the courts, "whether casualties afloat are all Providences of God?" It has always been the rule that railroad "accidents," of every class, mere the result of "gross negligence" or "incapacity" of the railroad managers. A steamboat, however, even when known to be defective when leaving port, may kill its thousands, as did the Sultana, and it is "an act of God," and the participants—the owners—are "let Scott free." If the same rulings of responsibility are to apply to steam navigation, and even to stage travel, we shall have fewer catastrophes than at present. It is but a year or two ago, in this immediate neighborhood, the proprietor of a stage line, undertook to use a horse that was known as "runaway," resulting in the upsetting of the omnibus and the death of two or three persons, and seriously wounding several others. Here was certainly carelessness and cupidity equal to having drunken switchmen, but no plea for damages was ever set up that we have heard of. Let the "saucer for Goose and Gander" be the same. We wish CHARLES B. LEWIS success in his enterprise.

—The Cedar Rapids *Times* states that Judge Green has returned from New York, and reports the prospects for securing the iron for the entire line of the Burlington, Cedar Rapids & Minnesota Railroad very favorable. Arrangements are being perfected for the ties and bridging, to be completed by the opening of spring, when the laying of the rails will commence simultaneously at Burlington and Cedar Rapids. Ere the gathering of another harvest, the grain dealers can ship direct to Chicago.

Mexico.

From the current news of the day we learn that GEN. ROSECRANS, is to be our new Minister to Mexico. Ever since Mr. ROSECRANS was relieved from active service in the army he has been carefully studying and investigating the affairs and resources of Mexico and our Western and South-western Territory. We State this from personal knowledge; and we have no hesitancy in saying that the Government could not have selected a more competent person to carry out its views and policy of Territorial extension than Gen. ROSECRANS.

A telegram to the *Gazette* says:

"The difference which Gen. Rosecrans feared to find between the policy the President indicated and which the military authorities are known to indorse, and the views so long held by Mr. Seward, has been so far removed that the General goes out to Mexico to carry out a policy looking directly to a protectorate as soon as Mexican affairs and our own look most favorable to such a move. It is also known that the occupation and possession of all the Northern Provinces of Mexico by our Government at no distant day is a project favorably entertained. Secretary Seward has had a decided policy of this character urged upon him at various times since Lee's surrender, and of late, also, by Mr. Johnson, but Mr. Seward has constantly insisted that our relations with Mexico should be arranged by less decided instructions, and by those which only contemplated diplomatic correspondence. Nothing but the unsettled condition of the Southern States has prevented such measures, as it is now understood Rosecrans will indicate as our future policy, from being communicated to the Mexican Government at any earlier day."

The *Gazette* says:—

"But there is something on foot in regard to further railroad consolidations. We hear that a broad gauge road is about to be constructed, from Rochester to Salamanca, and it is stated that the project for narrowing the gauge of the Ohio & Mississippi, from Cincinnati to St. Louis, has been suspended. What's in the wind?"

We don't believe that the folly of "broad gauge" will be extended to any very material extent; it never has paid, and serious doubts are entertained as to whether it can ever be made to pay. Relative to the Ohio & Mississippi road changing their gauge, it will be recollected that it was generally understood that the Pennsylvania Railroad was to furnish the necessary funds (\$800,000); it is now currently reported in railroad circles that the "Vanderbilt ring" have bought up the controlling interest in the stock. This, if true, will sufficiently account for the "milk in the cocoa nut," as we suppose the Pennsylvania Railroad does not propose to expend funds for the benefit of "the Commodore" knowingly.

The pearl fisheries recently discovered in Western Australia extend along the coast for one thousand miles. It is stated that over sixty tons of pearl oysters were fished up in December last, and sold for \$500 per ton in gold.

Pacific Railroad of Missouri.

[From the Financial Chronicle.]

The Pacific Railroad of Missouri extends from St. Louis directly west to the Kansas line, 283 miles, where it forms a close connection with the Union Pacific (E. Div.) Railroad, already completed to Coyote, 356 miles beyond that point, making the whole distance from the Mississippi River to the present western terminus of the joint lines, 639 miles. It also connects at Kansas City with the Missouri River Railroad, extending thence to Leavenworth, 33 miles, and operated under lease by the Pacific company.

This company is one of the great Land-Grant and State Aid corporations of Missouri. It was chartered February 11, 1849, and organized January 30, 1850. In June of the latter year the surveys for the projected line were commenced, and July 4, 1851, the formal breaking of ground took place. Construction was carried on with frequent interruptions through the following fifteen years, and was completed only in October, 1865, when the whole line was brought into operation. The details of operations through the intermediate years are given in an article published in the *CHRONICLE* of October 27, 1866. We refer to this article also for other valuable statistics not repeated in our present number.

The South-west branch of the Pacific Railroad, constructed chiefly on credit and State aid, and which formerly belonged to this company, has been sold to a new organization, and will form the first link in the projected Atlantic and Pacific Railroad. In the following review its accounts have been separated from those of the present Pacific Company.

The equipment of the Pacific Railroad is now sufficient for the business transacted on it. The number of engines placed on the road since the commencement of operations has been 63. On the 1st of March, 1868, there were on the line 52, 5 of the 63 having been condemned, and 6 turned over to the South-west branch. At the same date the company had 41 passenger, 6 mail, 17 baggage and express, 30 caboose, 270 box, 224 flat, 175 stock, and 7 other cars; also 25 stationary engines for pumping water. The Sleeping car company had 4 cars on the road, and the St. Louis and Pacific Express freight line 50 box cars.

The list of engines and cars owned and in use by the company on the first of March, 1864—68, both inclusive, was as follows:

	1864.	1865.	1866.	1867.	1868.
Locomotives.....	38	42	46	47	52
Passenger Train Cars—					
Passenger.....	24	26	31	41	41
Mail.....	6	6	7	7	6
Baggage and express	8	8	17	17	17
Freight Train Cars—					
Caboose.....	18	20	23	26	30
Box.....	194	184	239	289	224
Flat.....	118	218	211	221	224
Stock.....	88	92	133	144	175
Service cars.....	4	4	15	7	7

The mileage made by engines in the same five years, with the total cost and cost per mile for repairs, &c., is shown in the following exhibit:

	1864.	1865.	1866.	1867.	1868.
Engine mileage	698,977	831,433	1,199,650	1,405,886	
Cost repairs, &c.	\$232,395	\$348,942	\$464,829	\$523,434	
Cost repairs per m	33½c.	43c.	39½c.	37½c.	

These figures, meagre as they are, will serve to explain in some measure the general operating expenses given in the following paragraph:

The gross earnings from operations in the years ending with February, 1866—1868,

both inclusive, have been as exhibited in the following comparative statement :

	1866.	1867.	1868.
	\$	\$	\$
Passenger earnings	831,245 11	1,166,318 31	1,264,394 01
Freight earnings	924,075 86	1,465,273 25	1,694,233 38
Mail earnings	37,995 25	44,183 28	45,049 92
Rents	1,039 00		
Total gross earnings	1,794,356 21	2,671,874 81	3,003,681 31
Operating expenses	1,393,530 08	1,956,614 84	2,030,626 38
Nett revenue	400,826 14	719,230 00	973,054 93

The gross earnings were divided proportionately as follows:

Operating exp's. p. c.	77.66	73.10	67.61
Nett revenue, p. c.	22.34	26.90	32.39

The increase of gross earnings, operating expenses and nett revenue yearly, over each preceding year, is shown in the annexed statement:

	1866.	1867.	1868.
	1865.	1866.	1867.
Gross earnings, per cent.	63.42	49.13	12.25
Operating expenses p. c.	57.19	40.41	3.78
Nett revenue, per cent.	89.05	79.44	35.29
Nett revenue decreased.			

The following shows the average length (miles) of road operated in each of the above years, and the gross earnings, operating expenses and nett revenue per mile:

	1866-6.	1866-7.	1867-8.
	252	283	283
Miles of road operated			
Gross earnings, per mile	\$7,121 46	\$9,455 38	\$10,613 71
Operating exp's. per m.	\$3,529 88	6,913 94	7,175 36
Nett revenue, per mile	1,590 57	2,541 44	4,438 35

The whole line from St. Louis to Kansas City (283 miles) was brought into operation October 2, 1865. For the year ending February 29, 1866, the gross earnings per mile were \$7,100 46, in the year ending February 29, 1868, they were \$10,613 71, an increase of \$3,493 25, or 49.07 per cent. The operating expenses in the latter year were greater than the gross earnings of the former year. In the meanwhile the nett revenue rose from \$1,590 57 per mile to \$3,438 35, an increase of \$1,847 78, or 116 per cent. The decrease in operating expenses is remarkable: in 1864-5 they were 80.74 per cent of gross earnings, and in 1867-8 67.61 per cent, a decrease equivalent to 16.26 per cent. These facts are encouraging; they show not only that the business of the line is rapidly increasing, but also that it has been managed with an intelligent economy that augurs well for the future of the enterprise. One great drawback has been experienced in the fact that the gauge of the road is different from that of the lines connecting at either terminus. The gauge of the Pacific (Mo.) Railroad is 5 feet 6 inches, while the gauge of the Illinois lines, and also of the Union Pacific (E. D.) Railroad is 4 ft. 8½ inches. To remedy this anomaly and to secure more complete connections the company have decided to change the gauge of their road to that of the neighboring roads. This will secure a great uniform line of roads from New York, Boston, Philadelphia, Baltimore, &c., to the furthest west. Improvements in the way of auxiliary lines will be adopted. The Osage Valley and Southern Kansas Railroad, nearly completed from Boonville to Tipton is the pioneer. Its ultimate destination is Fort Scott in Kansas. The Pacific Company have taken a thirty years' lease of this road, and will probably open the first section early in September.

In order to show the progress of the Pacific (Mo.) Railroad *ab initio* we compile from the record the following statement of the mileage operated, and the earnings thereon yearly, since the opening of the first section in December, 1852:

Years.	Miles.	Earnings.
1-52 (8 days)	6	\$108 15
1853 (year)	22	41,323 29
1854-55 (14 mos.)	71	97,178 39
1855-56	81	330,992 34
1856-57	135	498,385 97
1857-58	135	608,346 59
1858-59	152	674,248 95
1859-60	162½	643,600 00
186-61	174	683,644 28
1861-62	180	457,183 69
1862-63	189	779,956 06
1-6-64	194	908,745 95
1864-65	214	1,179,967 69
1-6-66	222	1,794,336 22
1866-67	283	2,671,874 81
1867-68	283	3,003,681 31

The financial condition of the company, March 1, 1866-68, yearly, is shown in the following exhibit, being abstracts from the general balance sheets made up at date:

	1866.	1867.	1868.
	\$	\$	\$
Capital stock	3,541,598	3,609,115	3,614,515
State loan	7,000,000	7,000,000	7,000,000
Land grant sales and rents	131,295	260,358	219,307
Transportation receipts	8,401,010	11,092,470	13,963,585
Mortgage construction bonds	1,500,000	1,500,000	1,500,000
St. Louis county bonds	700,000	700,000	700,000
Real estate (land) b'ds			149,000
Bills payable	911,698	1,100,323	649,555
Accounts audited	238,754	265,297	156,720
Total	22,524,317	25,458,089	27,952,682

Against which aggregates are charged the following, viz,

	1866.	1867.	1868.
	\$	\$	\$
Construction	11,233,133	11,418,794	11,479,631
Rolling stock etc.	1,504,015	2,049,874	2,195,655
Missouri River R.R.		6,511	10,901
Office expenses	151,259	173,989	194,473
Contingencies	76,110	75,960	80,553
Interest account	953,297	1,176,259	1,388,338
Discount on construction, &c., bonds	8,860	8,860	8,860
Commission purch's	17,375	17,375	17,375
Interests, discounts & commissions	1,238,933	1,238,933	1,238,933
Land grant expenses	6,044	6,834	7,205
Transportation exp.*	6,596,161	8,552,806	10,883,432
Balance March 1	439,156	432,089	447,297
Total	22,521,347	25,458,089	27,952,682

* Including \$1,222,721 54 charged against transportation receipts for interest on State bonds prior to January, 1859.

Atlantic and Great Western.

The following terms have been agreed upon by the Debenture holders of this Company:

DEBENTURES £2,800,000, OR \$14,000,000.

1. The \$5,236,600 first and second divisional bonds in trust to be taken by the debenture holders in part liquidation of their claim.

2. For the Erie and Niagara, the New Lisbon and the Oil Creek bonds and shares in trust, of the face value of \$931,000, and for the money in the hands of the trustees, the debenture holders are to receive in cash \$592,400, or at 4s 6d per dollar, £133,290.

3. In substitution for over-due coupons on the divisional bonds in trust, to the 15th inst., amounting to \$1,171,000—income bonds, dollar for dollar, having ten and fifteen years to run and bearing 7 per cent. in currency, from 15th November, 1868, are to be issued to the debenture holders *pro rata*—the coupons themselves to be held in trust, so that in the event of any failure in the payment either of interest or principal on the income bonds, the coupons may be revived as a first charge upon the undertaking.

Together these three items will amount to \$7,000,000 or 50 per cent. of the debenture claims.

4. For the other moiety of the debenture claims, also amounting to \$7,000,000, the debenture holders are to have the option of tak-

ing dollar for dollar in Second Consolidated Mortgage Bonds, bearing 5 per cent. interest, in sterling, from 15th November, 1870; the two years interest accruing between 15th November, 1868, and that date to be paid in Income Bonds having twenty years to run, and bearing 7 per cent. in currency, or the option of taking £180,000 in cash, being £10 for every £100 debenture held, which is equivalent to 20 per cent. for the Second Consolidated Mortgage.

5. Income Bonds for \$381,516 having ten and fifteen years to run, and bearing 7 per cent. in currency from 15th November, 1868, are also to be issued to the debenture holders in respect to coupons accruing on the first divisional bonds, from 16th July, 1868, to 1st April 1869, and on the second divisional bonds, from 17th July 1868, to 1st April, 1870, from which dates the payment of accruing coupons to be resumed; the coupons themselves to be held in trust as in clause 3.

6. Income bonds for \$700,000 having twenty years to run, and bearing 7 per cent. in currency, from 15th November, 1868, are to be issued to the debenture holders in respect of one year's interest on the debentures to 15th November, 1868, at 5 per cent. The divisional coupons referred to in clause 3 and 5 are to be held collaterally to secure this issue also.

7. On the completion of this arrangement, the £2,800,000 debentures and the \$14,541,150 shares in the trust, are to be given up to the company for cancellation. All claims against the trustees are to be abandoned and the bill in chancery to be withdrawn.

The effect of this arrangement will be as follows:

	Face value	Market value	Sterling.
Divisional bonds in trust	\$5,236,600	\$3,141,960	£706,941
Income bonds (see clause 3)	1,171,000		
Income bonds (see clause 6)	700,000	1,126,258	253,408
Income bonds (see clause 5)	381,516		
Cash (see clause 2)	592,400	592,400	133,290
Cash (see clause 4) or second consolidated mortgage bonds bearing 5 per cent. in sterling, from 15th November, 1870, for \$7,000,000	7,000,000	1,400,000	230,000
Total	\$15,081,516	\$6,260,618	£1,373,639

—which will give for each debenture of £100—

	Face value p. c.	Market value p. c.
Divisional bonds	42.06	25.24
Income bonds	18.10	9.45
Cash	4.76	4.76
Cash, or \$250—second consolidated mortgage bonds and income bonds for two years' interest at 7 p. c. currency	50.00	10.00
	114.73	49.45

[This calculation is made at the rate of 60 per cent for the divisional bonds and 50 per cent for the income bonds.]

Receipts of the Western Union Railroad Company, for the week ending August 14:

	1868.	1867.	Inc.	Dec.
Freight	\$9,909 91	\$7,675 56	\$2,234 35	
Passengers	3,524 80	3,209 97	314 83	
Express and Tel.	350 00	320 00	30 00	
Mail	375 00	375 00		
Totals	\$14,159 71	\$11,580 53	\$2,579 18	

Receipts from January 1, to August 14:

	1869.	1867.
	\$406,103 35	343,771 51
Increase	\$64,391 84	

Can a Cheap Steel Rail be Made.

The introduction of cheap steel rails would constitute one of the greatest boons ever conferred on railway companies. That steel has defects as compared with iron those most accustomed to its use know best, but the greatest defect which it manifests as a material for permanent way is its large price. That steel rails break and are uncertain in quality is well known; but these short comings result not so much from irremediable defects in the material itself as from the attempt to produce steel at a small cost. Stimulate a maker by the assurance that for a first-class article he shall have first-class price, and the chances are that he will supply plates, bars or rails which are perfectly reliable within given limits. Cut down cost to the lowest point by keen competition and an anxious demand for the lowest tender, and steel rails result worse than iron rails costing less money. None know better than steel makers that to compete with the iron-master in the rail market is uphill work. Steel rails, to be good, must under ordinary conditions of manufacture be expensive; and impecunious railway companies do not like expensive articles of any kind. Before steel can beat iron it must be produced at a much lower price than it can now be made for. Is this impossible? We think not. Not in England alone, but in the great establishments of Europe and America, able men are grappling with the difficulty and toiling to find a means of producing steel in large masses at moderate rates. All this exertion is certain to bear fruit, and we have little hesitation in asserting that the day is not distant when very excellent steel rails may be had for the present price of good iron rails, say £7 10s. to £8 per ton. Such rails, if not all that can be desired, would, at least, be so infinitely superior to the wretched iron rails now purchased but too freely by companies blind to their own true interests, that they would command a market. No one will dispute such a proposition? Every one will ask when and where such rails may be had.

So long as ironmasters had no competition to dread from abroad very little attention was paid to minor economies. Whether a given quality of iron required four heats or three heats was regarded as of very secondary importance. But with the fall in prices, resulting mainly from continental competition, ironmasters began to study economy, and in many districts iron is now made more cheaply than it was ever made before. The principal saving is effected by getting the greatest possible work out of the smallest possible number of heats. With each heat dispensed with, an economy is effected not only in coal, but in labor, and in the wear and tear of furnaces. With existing rates, a heat more or a heat less represents for some orders a dead loss or a fair profit. Good iron rails are dearer than bars of inferior quality, principally because the iron of which they are composed, or they themselves, are more frequently heated. Could some of the heats be dispensed with without deteriorating the rail, good railway bars might be had for a very few shillings a ton more than those which break by simply throwing them out of a wagon. No practical ironmaster will dispute these propositions for a moment; but the great problem of reducing the number of heats and still working the iron thoroughly has yet to be solved. Yet to its solution, it must be borne in mind, we have been tending for years past: and at this moment it may be taken as settled that we know

in what direction we must proceed to attain ultimate success. The secret lies in expeditious working, and this demands great power. Let us see what expeditious working means.

It is obvious that the process of manufacture *per se* does not tend to cool a mass of iron very strongly unless the mass is of very small size, and we are not now talking of small masses. In any case, the process being the same, the amount of cooling due to the carrying out of the process alone will be the same. Thus, if a bar loses 500 degrees, abstracted by passing over 100 feet of cold roll surface, this loss can certainly not be increased by reducing the time of contact. The loss by radiation and convection through the surrounding atmosphere will augment in proportion to the time the iron is out of the furnace. Regarded from this point of view it is expedient that rolls should be driven at the highest possible speed; but the power must increase with the speed. This difficulty can be got over. There are some others, however, which appear to be to a certain extent un conquerable, manifesting themselves in cases in a deterioration of the finished material, while in others bars cannot be got to hold together under rolls running at excessive velocities. The greatest difficulty of all lies in the fact that no back hand can properly take iron at much more than three miles per hour. Nevertheless much has been done within the last eight or ten years to expedite the rolling of iron, and we seldom hear now of a process once pretty well known, in which piles were first broken down, then reheated and rolled into finished bars, the breaking down and rolling to the finished section now being done by proper machinery at one heat, with corresponding saving of time and money.

When we come to deal with hammered iron, or iron partly hammered and partly rolled, we find that we stand on the eve of very important changes. Already it has been found possible to knock the cinder out of a pile under a hammer and then to roll it off at one heat. In the days of the old tilt this could not easily be effected; the tilt took too much time to do its work. Now, in a few seconds the steam hammer will effect as great a change in a pile as the tilt could have done in as many minutes, and time is gold indeed in the working of iron.

Writing up to this point almost altogether of iron, our readers will begin to ask what all this has to do with steel rails? In our opinion a great deal. It is most unlikely that we can have a very cheap Bessemer rail for years to come; but it does appear that by the application of the principal on which we have written—that of doing as much as possible with the fewest heats—we may have puddled steel rails of very excellent quality at very low prices. At the last meeting of the Institution of Naval Architects, Mr. Rochussen exhibited specimens of puddled steel plate quite homogeneous in texture, produced from a single bloom weighing 150 lbs. These specimens were compared with puddled steel plates rolled from a hammered pile made of shingled bars, and showed a finer grain, and a tensile strain 51 tons per square inch, as against 31 tons. Their ductility was less, but there was reason to believe that it was not too small for rails, and therefore it was determined to endeavor to produce rails in the same way. A single puddled ball is not large enough to produce a rail, and attempts had been made to weld two or more balls together under a 25 cwt. hammer without success. Either the blooms would not hold together, or the resulting rail lacked

homogeneity, and was correspondingly bad. A fresh experiment was made with a 12-ton hammer, and the result has so far been eminently satisfactory, excellent rails having been produced at the Hoerder Iron and Steel Works, Westphalia, within the last few weeks, by welding together three or four balls into one homogeneous bloom. The faces of the hammer and of the anvil are concave, so as to keep the metal together, and not only is the slag driven out, but the weld is perfection. The rails rolled from these blooms have a grain almost as fine as cast steel, and much finer than that of rails made in the old way from bar piles.

The crop ends, when slowly and strongly heated, can be rolled with ease into flat or round bars, plates, or light tram rails, so that there is no waste of material. All the expense of shingling, cutting and piling is saved, and considerable economy of fuel, room, plant and capital secured—in a word, we have here an extension of the principal of getting the greatest possible amount of work out of a given number of heats. The experiments are still in progress, and even better results than those already obtained are likely to tend on improvements in a method of manufacture yet in its infancy. The essentials to the success of the process appear to be getting the puddle balls all to the anvil at the same time, and then applying very great hammer power, while the balls are at the hottest. We shall not attempt to enter, in the present stage of the experiments, into the theory of the subject. This much is certain, the grain of the rails is quite different in character from that proper to the use of the light hammer, and it is probable that fine grain irons similarly treated may give very excellent rail blooms. The idea involved is capable of development, too, and we may yet have the blooms welded in the furnace on a system the details of which lie before us. It only remains to be proved that puddled steel rails so produced are sound and trustworthy to set at rest at once the question—can we have a cheap steel rail? Rails so made must be cheap. If found thoroughly good as well, Mr. Rochussen and the Hoerder Works will have the honor of solving one of the most important problems of the day.—*London Engineer.*

RAILROAD ON MOUNT WASHINGTON.—*Summit Mount Washington, N. H., August 14.*—The excursion party over the Mount Washington Railway arrived at the summit of the mountain at 2½ o'clock. The party stopped at the White Mountain House last night, and this morning took stages for the base of the mountain, where, at 2:22 o'clock, that style of locomotion was changed to the cars. The progress up the mountain side was slow but sure, and somewhat less fatiguing than the pedestrian mode of traveling. The road is completed to within about three-quarters of a mile of the top, and the excursion was, in fact, a sort of formal opening to that point, the new car being run for the first time for the accommodation of passengers. It is proposed to push this grand enterprise through to completion the present season, if the weather permits, and there seems but little doubt of its consummation in the allotted time. By the opening of the next season passengers will be carried up the entire distance from the base to the door of the Tip Top House by steam—a distance of 2 13-16 miles. The excursionists, who number about fifty gentlemen, including most of the leading railroad managers of New England, pronounce the road a complete success.—*Boston Journal.*

Our Pacific Empire.

A recent semi-annual Review of the Trade and Commerce of San Francisco affords a comprehensive and satisfactory exhibit of the continuing growth of this metropolis of the Pacific States. Its imports from foreign countries for the half year ending June 30 are \$8,000,000 in gold, while those from the Atlantic States amount in currency to \$22,457,000, a total increase of about eight millions on the imports for the like period of last year. While its total imports thus exceed \$24,000,000 in gold values, its exports for the half year are in merchandise \$11,000,000, bullion and coin \$20,000,000; total, \$31,000,000, in gold. The Savings Banks have deposits amounting to \$17,000,000. The coinage at the mint amounted to \$3,658,000, of which \$323,000 were silver, being only half that of the same period in the previous year. The duties on imports amounted to \$4,028,522, and the receipts of internal revenue to \$3,000,000. The army disbursements on the Pacific coast were \$5,179,879. The dividends of the twenty-three leading mining, banking, and insurance companies for the three months ending June 30, amount to \$1,392,500. The amounts disbursed by thirty-one leading incorporated companies for the six months amount to \$2,259,300, as against \$3,190,700 for the like period of the previous year. The sales of mining stock for the six months amount to \$61,513,123, as against \$30,000,000 the previous year, and \$21,000,000 for the like period in the year 1866. The market values of the sixteen leading mining companies on the Comstock Lode amount to \$9,685,900, as against \$14,374,098 in 1866, showing a decline of \$4,700,000, in value in two years. The dividends paid by these companies for the six months were \$904,000, as against \$1,983,000 for the like period of 1867, while the assessments were \$733,200 for the first half year of 1868, as against \$332,280 for the like period of 1867. These facts show a decline of \$1,400,000 in annual profit, and clearly demonstrate that, unless the Comstock Lode shall be tunneled on the plan of M. Sutro, all these mines will soon cease to yield a revenue. The local insurance, railroad, and other companies are paying moderate dividends. The sales of real estate for the half year are 3,477, and amount to \$13,830,436. During the half year are 1,550 vessels arrived, bringing 500,000 tons of freight, against 1,150 vessels and 390,000 tons for the like period last year. San Francisco has a fleet of forty steamers, registering over 60,000 tons, all owned by three companies. The arrivals of passengers by sea were 32,186, against 11,367 departures, showing a net gain of over 20,000. In the same period last year the gain was only 8,000. There arrived 5,380 Chinese and Japanese, and departed only 565. Fourteen vessels wholly laden with railroad iron, and 128 vessels in all, were inward bound toward San Francisco when the Review was published. Such figures give an accurate, and, when duly considered, a most impressive view of the rapidity with which our Pacific Empire is growing in population, wealth, and power.—*Tribune*.

TENNESSEE RIVER IMPROVEMENT.—An appropriation, in amount, sufficient to remove the obstructions in this river, between Chattanooga & Decatur, was made by the Congress just previous to its late temporary adjournment.

This appropriation will be applied immediately—and the work will commence before the close of the present month.

The Public Debt.

The following is a comparative statement of the Public Debt of the United States June 1, and August 1, 1868:

DEBT BEARING COIN INTEREST.		
	June 1, 1868.	August 1, 1868.
Five per cent. bonds.....	\$220,812,400 00	\$221,588,400 00
Six per cent. bonds of 1867 and 1868.....	8,582,641 80	Matured.
Six per cent. bonds of 1881.....	283,677,200 00	283,677,300 00
Six per cent. 5-20 bonds.....	1,494,755,600 00	1,583,106,100 00
Total.....	\$2,007,827,841 80	\$2,058,371,800 00

DEBT BEARING CURRENCY INTEREST.		
Six per cent. Pacific R. R. bonds.....	\$25,902,000 00	\$32,210,000 00
3-year compound int't notes.....	21,604,890 00	21,604,890 00
3-year 7-30 notes.....	105,610,650 00	Matured.
Three per cent. certificates....	50,000,000 00	50,000,000 00
Navy pension 3 per cent....	13,000,000 00	13,000,000 00
Total.....	\$216,117,540 00	\$84,604,890 00

MATURED DEBT NOT PRESENTED FOR PAYMENT.		
3-year 7-30 notes, due August 1, 1867, June & July 15, 1868.....	\$947,500 00	\$8,433,800 00
Compound int. notes matured June 10, July 15, Aug. 15, Oct. 15, and Dec. 15, 1867, and May 15, 1868.....	8,012,360 00	6,013,910 00
Bonds of (Texas indemnity)....	256,000 00	256,000 00
Treas'y notes, (acts July 17, 1861, & prior thereto).....	155,211 64	154,511 64
Bonds Apr. 15, 1842, Jan. 28, 1847, & Mar. 31, 1848.....	6,000 00	1,925,941 80
Treas'y notes, Mar. 3, 1863....	555,492 00	555,492 00
Temp'r'y loan, 883,639 00		746,520 00
Certificates of indebtedness..	18,000 00	13,000 00
Total.....	\$10,834,202 62	\$18,099,175 44

DEBT BEARING NO INTEREST.		
United States notes.....	\$356,144,212 00	\$356,021,073 00
Fract'nal currency.....	32,531,589 94	31,867,818 37
Gold cert'cats of deposit....	20,298,180 00	22,414,000 00
Total.....	\$408,973,981 94	\$410,302,891 37
Total debt....	\$2,643,753,566 38	\$2,633,588,756 81

AMOUNT IN THE TREASURY.		
Coin.....	\$90,228,559 31	\$83,409,917 93
Currency.....	43,279,120 33	26,644,358 21
Total.....	\$133,507,679 64	\$110,054,276 14
Debt less cash in Treasury....	\$2,510,245,886 74	\$2,523,534,480 67

The Cheyenne *Argus* gives the following valuable table of distances between different places in the North-west:

From Omaha to Cheyenne is 515 miles; from Cheyenne to Denver and Golden city, 111 miles; from Cheyenne to Salt Lake, 535 miles; from Salt Lake to Lake's Crossing, on the Truckee, 499 miles; from the Truckee to Sacramento, 119 miles; and thence to San Francisco, 124 miles, making a total distance between Omaha and San Francisco of 1,792 miles. From Cheyenne northwest to Fetterman, 170 miles; to Fort Reno, 274 miles; to Fort Phil Kearney, 339 miles; to Fort Smith, 429 miles; to Helena, 609 miles; to Fort Benton, on the Missouri, 749 miles. On the Montana route, the distance from Salt Lake to Bear River, a junction point with the road to Boise mines, is 84 miles; to Malad City, 116 miles; to Taylor's bridge, Snake river, 238 miles; to Virginia City, and Montana, 422 miles; to Helena City 516 miles. From the Junction, at Bear River, to City of Rocks, 181 miles; to Boise City, 393 miles; to Idaho City 340 miles; to Owyhee, 475 miles.

TRACTION ENGINE.—The traction engine lately imported by Mr. Sutherland Taylor, was again successfully tested on the streets recently. It was driven from Messrs. Hamilton & Son's foundry, on Palace street, along Front street up to Yorkville by Church, Gould and Yonge streets, drawing after it a load of 15 tons. Its capacity for drawing a heavy load up an incline was tested, and worked admirably, and ascended the hill, drawing the load after it, with the greatest ease. The novel sight was witnessed by a large number of people. Before the train had proceeded half way to Yorkville, so satisfied was one of the intended purchasers of the power and capacity of the engine to perform, the work that it was advertised to do, that a bargain for its purchase was agreed to. The purchasers are Messrs. John Bruce and James Waterson, of Walkerton. They intend to place the engine on the route between Walkerton and Guelph, to accommodate the growing and already extensive trade of that locality.—*Toronto Globe*.

SWEDISH BESSEMER STEEL.—The high quality of Swedish charcoal-iron gives it an especial value for conversion, by the Bessemer process, into steel. In respect to the two most mischievous impurities which render ordinary irons wholly unfit for conversion, viz., sulphur and phosphorus, Swedish irons possess, in most cases, but a trace of each. The natural advantages of Sweden for the production of iron at a comparatively cheap rate are also greater than is generally supposed. The ore, yielding an average of 50 per cent. of iron, is practically inexhaustible, and is cheaply raised, the cost of getting, at the Hammarbacken Works, in Central Sweden, near Lindesburg, having averaged, according to the report of the manager of the works, Mr. Edlund, 4s. per ton of ore, equal to 8s. per ton of iron. Charcoal can be made in practically unlimited quantities, the quantity requisite for making one ton of pigs being about 255 cubic feet, costing, at the same works, about 29s. 6d., a high charge, no doubt, yet still permitting the production of the very best iron at about £2 13s. 4d. per ton, which it is stated was the actual cost price at the works in question for a period of ten years ending December, 1866. This cost, it is estimated, would permit of the production of Bessemer ingots selling in Hull for £7 per ton.—*Engineering*.

BOTTOM CAST STEEL INGOTS.—The *Railway Times* says: Mr. A. L. Holly, of the Pennsylvania Steel Works, has introduced a new process in casting Bessemer steel ingots, which consists in making a nest of ingots in one piece by pouring the metal at the bottom and in the center of the mould. In this manner 5,000 ingots have been cast mostly in groups of seven. Arrangements are now being made to cast the whole charge of five tons in a group of thirteen. The improved flasks consist of large cast iron bottoms, with a central cavity, in which the prolongation of the central or sprue mould is formed, and radical channels in which the runners from this sprue mould to the surrounding moulds are formed. The cavity and runners are lined with moulding material (old ground fire-brick and loam) from one-half to one inch in thickness. The patterns are all formed on the following board, and drawn at one operation. The advantages of Mr. Holly's process over the ordinary one of pouring into the top of the mould are:

1. The improved quality of the ingots. In the ordinary method the steel falls the whole length of the mould and spatters on the sides, consequently the ingot is more or less porous. By the new plan the steel rises gradually in the mould, and is pressed against the top by a ferro-static column one foot or more in height. The ingot thus made is less porous and has a smooth exterior.

2. A saving of scrap; for under the old system the ingots can not be made of uniform length.

3. Convenience of working; the best proof of it being that the workmen prefer the new process.

4. The saving of the ingot moulds. Many of the moulds of the new model in the Pennsylvania Steel Works have been used 400 times, which is about four times the service obtained from a mould of the old form.

BESSEMER STEEL-WORKS AT HOME AND ABROAD.—The following list of works where the manufacture of Bessemer steel is carried on will be of interest as showing the extent to which the Bessemer process has been adopted:—

The Bessemer Steel Works, Troy, N. Y.; Messrs John A. Griswold & Co.; Z. S. Durfee, Manager.

The Pennsylvania Steel Works, Harrisburg, Penn.; S. M. Felton, President; A. L. Holly, Chief Engineer.

The Freedom Iron and Steel Works, Lewistown, Penn.; John A. Wright, President; R. H. Lee, Superintendent.

The Cleveland Rolling Mill Company, Cleveland, Ohio; A. U. Stone, President; John C. Thompson, Superintendent.

The Wyandotte Steel Works, Wyandotte, Mich.; E. B. Ward, President.

The National Iron Armor Company, Chester, Penn.; Wm. B. Reaney, President.

The Columbia Iron Works, Johnston, Penn.; Chas. S. Wood, President; George Fritz, Chief Engineer.

The Foreign Bessemer works are as follows:—In Great Britain there are 17 works; in France, 5; in Belgium, 1; in Prussia, 7; in Austria, 10; in Sweden, 12; in Russia, 1; in India, 1. The whole number of converters in use is from 130 to 150, of various sizes, from one ton to ten tons, and the total annual capacity of them all is not less than half a million of tons.

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It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeleted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

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Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis, Aug. 2, 1886.

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THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.00am.....	7.00pm
" Dayton.....	8.20 ".....	9.15 "
Arrive West Salem.....	1.40pm.....	4.08am
" Leavittsburg.....	4.40 ".....	7.30 "
" Meadville.....	7.05 ".....	10.15 "
" Susquehanna.....	7.30am.....	10.38pm
" Paterson.....	2.33pm.....	6.17am
" New York.....	3.15 ".....	7.00 "
" Boston.....	6.00am.....	5.00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE

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Passengers to the Eastern Cities will find the

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The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

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W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front re East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines. State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAX TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:2 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

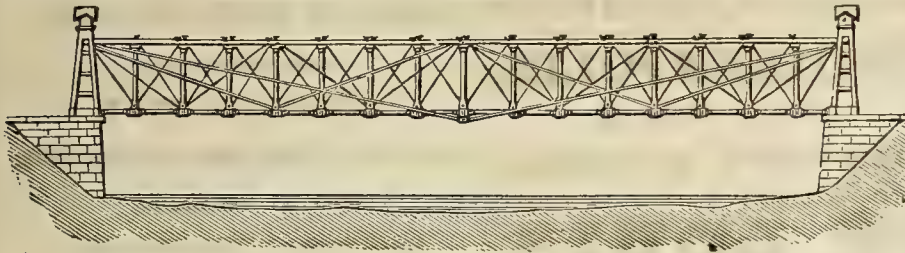
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

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In which they are adapted to the particular business or which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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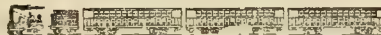
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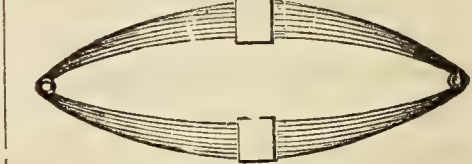
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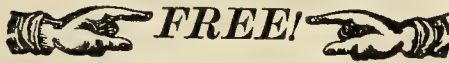
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Fare to Washington City same as to Baltimore.

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} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 40 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; or at the new office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

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For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI, 7 40 a.m.	10 10 p.m.	4 01 p.m.	
Arrive SEYMOUR, 12 00 m.	2 00 a.m.	8 10 "	
Leave " 12 20 p.m.	2 10 "		
Arrive VINCENNES, 5 15 "	6 35 "		
Leave " 5 20 "	6 40 "		
Arrive ODIN, 9 35 "	10 30 "		
Leave " 9 45 "	10 40 "	6 30 a.m.	
" SANDOVAL, 9 55 "	10 50 "	6 40 "	
Arrive ST. LOUIS, 1 00 a.m.	1 30 p.m.	9 40 "	
Trains Arr. at Cincti, 6 10 a.m.	11 30 p.m.	12 00 m.	

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
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Best Route to St. Louis and Chicago

INDIANAPOLIS,
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LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

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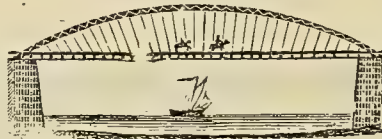
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TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted); 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. Express

SUNDAY TRAINS—Leave Philadelphia for Baltimore and Washington at 4.15 A. M., and 11.00 P. M. Leave at 11.00 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON.

CINCINNATI:
THURSDAY, AUGUST 27, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
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Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Coinersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Coinersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

The Cincinnati & Mackinaw Railroad.

In our last number on this subject, we gave an outline of this project, as it was originally formed, and of the several parts necessary to complete it. Let us now go a little farther, and see exactly what it would be if completed, and what is necessary to complete it. Take these points; Mackinaw, Cincinnati and Pensacola, as the points which determine this great axial line. We say Pensacola, because, (although a Southern Line from Cincinnati would really go to all the great Southern ports,) Pensacola is the most Southern, by far the best port, and opens most directly on the Gulf of Mexico. In this respect, New Orleans has been overrated. At New Orleans, a winding river and dangerous sand bars are between the port and the Gulf; but not so Pensacola, which is a deep harbor, opening right on the sea. For all the Central States, East of the Mississippi, Pensacola is the best. We assume it then, as the initial point, on the South. Now, let us see what points a direct line would touch. Take your map and look and see what you find there:

1. Almost exactly on the line are Lansing (Michigan), Lexington (Ky.), Chattanooga (Tenn.), and Montgomery (Ala.) Are not these the very places you want to go? Chattanooga, being the key point of the mountains, on the Tennessee, where it is navigable, and connected with Georgia and South Carolina by railroads, there is where you want to go first. Montgomery is a city, in the heart of Alabama and the cotton trade; you want to go there. You see, then, that you have the greatest axial line in the United States just where you want it, and where business will come, beyond the power of a single railroad to do. In Ohio, it occupies a place altogether unoccupied by any railroad. Greenville is almost exactly on the straight line; then Celina, Paulding, and Defiance. In Michigan, it goes through the heart of the State, and reaches the very centre of the Lake system.

2. Having our line, what have we done, or what can we do to accomplish the work? This is the practical question, and we examine it with much hope. We cannot expect, it never did happen, that a great line railroad goes exactly on a straight line. There must be divergences to suit the nature of the country, and to reach the great marts of commerce. Admitting this, let us see if some parts of our work are not already done. Let us take Pensacola, Montgomery and Chattanooga, as points. We have the following parts of the line in operation, viz.:

	Miles.
Pensacola to Montgomery.....	161
Montgomery to West Point.....	88
West Point to Atlanta.....	87
Atlanta to Chattanooga.....	138
Pensacola to Chattanooga.....	474

This route will finally be much straitened, by a line already in construction from Montgomery to Atlanta, of which 130 miles are made. Now, everyone knows, that there is a railroad from Chattanooga to Nashville; from Nashville to Louisville; and from Louisville via the Ohio & Mississippi R.R. to Cincinnati; so that at this moment cars can run (excepting the Bridge over the Ohio,) from Cincinnati to Pensacola. This is probably 200 miles out of the way. But, to remedy this, we have in the future, the Cincinnati Southern Line, which is the one great thing to be done, and without which, Cincinnati is secondary to Louisville!

Now, it is very obvious, that it is the Ohio and Michigan Line which first demands our attention; and here we have—1. The Dayton and Greenville line (37 miles) made; 2. The Short Line Tunnel route, 52 miles, partly made; 3. The Greenville, Van Wert, and Amboy line, partly made; 4. From Amboy to Lansing; 5. From Lansing to Mackinaw. On this route, it is about 200 miles from Cincinnati to Amboy, almost a direct line, going through a rich country, and the shortest line from Michigan to Cincinnati, and the only one which will have a good entrance into Cincinnati, central and adequate to all purposes. On this route there is supposed to be a million and a half of dollars in work, property and advantages, which can be made an advance without cost to the company; who shall take the work in hand and finish it? Taking the whole work from Cincinnati to Amboy, we suppose the total cost will not be over \$8,000,000, which the new Company (consolidating all others, might apportion as follows, viz.:

Advance by the old Companies.....	\$1,500,000
New subscriptions.....	2,500,000
First and only mortgage.....	4,000,000
Total.....	\$8,000,000

Undoubtedly, the only difficulty in this will be the new subscriptions. On the hypothesis that people understand their own interest (an interest which is perfectly clear and plain), we should suppose the new subscription would be obtained thus:

1. On the line of the road which is comparatively a new country.....	\$500,000
2. Subscriptions by capitalists.....	1,000,000
3. Subscriptions by railroads continuing the line South.....	1,000,000
Total.....	\$2,500,000

This is an hypothesis; but, it seems to us it ought to be done. The last item seems to us a clear one. If there is a Railroad Bridge over the Ohio, it is beyond all doubt the immediate interest of all the Roads connected with that Bridge to have an outlet (not merely to New York), but directly to the great lakes and lumber regions. But, it is not our purpose to discuss the financial arrangements, but to show how easily this great work might be accomplished, and how much of it is done.

Two things stand out plain, that on the North side of the Ohio river, the Tunnel and Short Line must be made, to make the whole plan available; and on the South, we must have the Bridge and the Southern Road. It would not require an extraordinary capital to accomplish both; and they would accomplish wonders for the growth and wealth of Cincinnati. We have written so much on this subject, and have so little inducement for ourselves, that our mouth would be closed; but, that we were early enlisted in the prosperity of Cincinnati, and still feel a lingering regard for projects which we know promised the greatest advantage for its interests, and which may still be accomplished with immense profit for all concerned.

Hudson's Bay Territory.

THE GREAT NORTH-WEST.

The Hudson's Bay Company, which controls, it is stated, more than a third part of the Continent of North America, held its annual meeting recently in London. On this occasion the Directors reported that the dividend would be but three per cent., in place of four and three-fourths, the average for the three years preceding. It was stated that the fur trade still was flourishing, but that several losses had occurred, which depressed the revenue. It was intimated, however, that the British Government was negotiating for the purchase of the Company's territory, in order to make a cession to Canada, and the position was taken that it should not be sold for less than six millions five hundred thousand dollars, the sum which was offered for it by the American Congress.

We clip the above from the Cincinnati Times. If the construction of the Northern Pacific Railroad had been pushed with the same vigor and at the same cost (which in reality is no cost at all) as the central, this Territory would have fallen into our hands without a doubt. The difficulties of the route, for attaching it to the Dominion of Canada north of Lake Superior, are so great as to be almost insurmountable; but, engineering skill and British pride and capital can accomplish a great deal. Let us stop a moment and look at our position. 1st, The interest of the Company in the Fur Trade alone, which would be diverted to this country, is no inconsiderable item and would make us, with the Fur Trade of Alaska, masters of the situation. This, however, is of minor importance when compared with the fact that, 2nd, The Company's territory contains the great grain field of the American continent—the Saskatchewan & Red River district. It is idle to contest the fact, the great valleys and plains of the North-west have demonstrated themselves to be the wheat producing districts of this continent, other sections surpass it in the production of corn and cotton, and there are many limited districts where fine yields of wheat are obtained, but never in such quantity as freight hundreds of vessels and tax the

carrying capacity of innumerable railroads. 3d, The extent of the territory is 2,500,000 square miles, or 1,600,000,000 acres; which, at the price above named for the whole Territory, \$500,000, is just *four mills and one-sixteenth of a mill per acre*. There is an area equal to eight or ten first-class States in the valleys above alluded to, that is as desirable in every respect as Minnesota. 4th, The title should be perfect, and if the company can convey it, we had better pay four times the above named sum than not to get the property; but, if it is to involve a contest with Great Britain to perfect the title, we have no doubt or fear of the result; although we don't want it at any price.

Now what have we done in reference to it? Why literally nothing. Congress did pass a law granting an ample subsidy in Government loans and lands to construct the Great Central line of railroad to the Pacific, and also some two other Branches that were to be feeders of it; but, the Northern route must have been considered either to have possessed more intrinsic merit or else that it was of no value. On no other hypothesis can we reconcile the fact that the subsidy to the Northern route is confined exclusively to lands in similar amounts to those granted to the Central, for corresponding character of route. If, we repeat, we had pushed this great work forward with the vigor that its merits demanded, this vast Territory would have "dropped into our hands like ripe fruit;" this short-sightedness may, however, cost us an empire, or a much larger sum of money than would construct the entire Northern Line from the Straits of Machinaw to Puget's Sound.

The Father of the Pacific Railroad.

The father of the Pacific Railroad, Dr. Hartwell Carver, has lived to realize, in part, his anticipation of once crossing the continent by railroad, as will be seen by the following, which we find in a late Eastern paper:

General Carver, formerly of Minnesota, who was in Washington twenty-one years ago, advertising the Utopian scheme of a Pacific Railway, goes hence to-morrow morning for Fort Laramie, to enjoy his first trip over the new road. He goes, at the age of 80, to found a new city—to bear his name—near the present terminus of the line. He claims to be the father of the Pacific road, and exhibits, as curiosities, the pamphlets which he published in favor of the enterprise in 1847.

Well do we remember how eagerly we listened, more than twenty-five years ago, to Dr. Carver's earnest and interesting narration of facts and calculations in regard to the feasibility of constructing such a road, and the great importance, not only to our nation but to the world at large, of its being speedily built. He foresaw then the vast commerce which all now admit must be carried on over the Pacific Railroad with the crowded empires of Eastern Asia, and compiled and published voluminous statistics to prove it. He visited Europe, as well as the Atlantic cities, to try to induce capitalists to take hold of the great

work. The first pamphlet published by him on the subject was early as 1841 or 1842. But he was regarded as a visionary, or crack-brained enthusiast, and met with no substantial encouragement. Yet he had a rival in Asa Whitney, of New York, who represented a large amount of capital. After listening to Carver's plans, and gaining all the information from him possible, he started with a corps of engineers, in 1845, to examine the route from Milwaukee to Council Bluffs. We saw him and his party in the interior of Wisconsin in July of that year, buoyant with hope and confident of finding a favorable route to the Missouri river, in which event he would extend his explorations further westward the next year. But he never reached Council Bluffs; his party got discouraged and disgusted with camp life—for it was an untamed wilderness, then, between the Mississippi and the Missouri rivers through Iowa—and they abandoned the survey. Carver spent several years and much money in the effort to enlist the Government and capitalists in the scheme, but in vain; and he too became disheartened and disgusted, and abandoned the hopeless task. And his greatest project was forgotten by the public until the great rebellion revived it. We shall soon see it consummated now, however, and will yet welcome our old friend to the shores of the Pacific.—*Alta California*.

Just where Dr. CARVER and ASA WHITNEY left it, others took it up, did not become disgusted nor discouraged, and finally succeeded in creating a public sentiment that made it a necessity, and at last the road is nearly done. It is unnecessary to explain the *modus operandi* by which this result was reached; but we know that those who were principally instrumental in doing so, got as few thanks and no more coffers for their labors than did CARVER or WHITNEY.

The following project of Dr. CARVER, shows that the old man has not entirely profited by the experience of the past thirty years, and that he has at length reached his dotage. That the time will come when regular lines of transit will be established between distant points by passage through the air, and that steam carriages will be used for common traffic on ordinary roadways instead of horses, securing greater speed and economy. It has, however, been fully demonstrated that "broad-gauge" don't pay; and with the necessary enormous increase in the cost of track, weight of rolling stock and machinery to carry out Mr. CARVER's project, it would "pay less." This is all outside of the idea of "making" nearly ninety miles an hour, the impossibility of constructing a perfectly straight track, and the well known obstacle of almost perpetual snows on the Central route. But we give the old man's idea to the world just as it was born. In a note to an Omaha paper Mr. CARVER says:

"I mean to go right on, propose, and establish, if I live, as nearly as possible, an air line route between the Atlantic and Pacific oceans (on the surface of which float nine-tenths of all the commerce of the world) for a railroad, with a track eight or ten feet wide. The passenger cars on this road will be traveling

hotels, whereas Pullman's cars are only substitutes, and I first described them in a pamphlet written and published at Washington, twenty-one years ago last January. These passenger cars will be very large and splendid, accommodating from three to four and even five hundred passengers, with all the comforts of any hotel of this or any other country. I will say to the public, call this Utopian, vain, visionary, if you please. My first plan of the present Pacific Railroad was called so, and laughed at four or five years after I had begun to recommend it, write articles for it, and in all ways to labor hard in its favor. Further, I mean, if I live, when the road is completed and every thing in order, to travel from the city of San Francisco to the city of New York inside of forty-eight hours. We have got a model car in New Jersey, built of cedar, with each wheel running by itself, like a wheelbarrow, and a small engine, about as large as a barrel, in the bow of the car, and have run it at the rate of over two miles a minute with perfect safety and ease.

A Much needed Invention.

Our attention has been called to a "Railroad Telegraph Alarm," an ingenious, yet simple invention, that promises much towards lessening the liability to accidents upon railroads.

As its name indicates, it is telegraphic, but so arranged that each train is its own operator, and announces to approaching and following trains its location on the track, and whether all is right. The signal may be given by means of a stroke upon a large gong or by casting an index hand in such a position as to convey the requisite intelligence.

These signals may also be used at road crossings a mile or more in advance of the train, and repeated every five hundred feet the train advances. Or each train may announce an hour or more in advance of its arrival, the number of its passengers, or give an order for dinner to any hotel, whose proprietor may be enterprising enough to effect the necessary connection.

Its principal, and indeed great value, however, is the prevention of such fearful accidents as railway collisions, or the running of one train into another, as for the past year have from time to time shocked our people, made many a bright home desolate, almost ruined some of our strongest companies, and brought our railroad management into disrepute.

With our present system of telegraphing, a single track may be used to an extent approximating the capacity of a double track. But this requires a large corps of day and night operators, and the most careful and experienced management. And even then, the infirmities of human nature occasion a blunder that costs many precious lives, thousands of dollars, and another charge to the list of "unavoidable casualties." And, without a blunder, accidents occur, and in fact the most frequent, between stations, over which the telegraph has no control whatever. The

trains once past the station, they are on the wing for weal or woe, until the next one is reached. To obviate this, some companies are subject to the enormous expense of keeping watchmen upon every mile of road night and day, to signal to each other, and to the passing trains.

It is precisely this service the "Railroad Telegraphic Alarm" is intended to perform; but instead of depending upon human agency, at best liable to uncertainties, each train, by the aid of simple and certain machinery, *speaks for itself*.

We learn that something of this kind is in use upon the Prussian railroads; the best managed roads in the world. But the American invention seems to be most complete, and in many respects is better than the European.

Whilst we write, a model of this invention is before us. A miniature car is passing over the track, and with unerring regularity announces its approach.

We see no reason why this should not work, and go into use upon all our railroads, as fast as it can be had. A few weeks since when this same model was exhibited to the members of our Chamber of Commerce, the committee appointed to report upon it, made use of the following striking language:

"Unless Railroad Companies can show something in its construction or working that renders it impracticable, they should be held responsible for the lives of passengers, as well as the property destroyed. The best means to prevent accidents must be used, and we think, the time is at hand, when Railroad Companies will use them for the safety of their property, if actuated by no higher motive."

This is truly one of the valuable improvements of the day. It is cheap, within the reach of the poorest railroad company. Its adoption is demanded by the interests of humanity, as well as those of the stockholders in these costly projects.

We are glad to announce that already a company has been formed in this city for the manufacture of the article, and will proceed at once to fill orders as fast as possible. They will find their profit in it.

POWER OF THE MICROSCOPE.—In our own country, in 1863, Messrs. Greenleaf and Stodder, of Boston, distinguished lines 90,000 to the inch. In 1867, Dr. Woodward, of Washington, resolved what is called "Nobert's Band," of 90,000 to the inch. He afterwards got 101,000. Recently, both Messrs. Greenleaf and Stodder, with a 1-6 immersion microscope saw satisfactorily *Nobert's band* of 112,000 to the inch, thereby "establishing the fact of the visibility of such lines, contrary to the theory of the physicists." Wonderful as these facts in reality are, what is still more surprising is, that these bands of Nobert's can be *photographed*, and their images can be counted to the number of 60,000 to the inch. With what kind of a point does Nobert mark his lines, and how is that point moved.—*Boston Journal of Chemistry*.

East Saginaw & Port Huron Railroad.

[From the Saginaw Enterprise]

Mr. E. G. Goddard, the Engineer employed by the East Saginaw & Port Huron Railroad Company to survey the line, has just submitted the following report to the company:

To the President and Directors of the East Saginaw & Port Huron Railroad Company:

GENTLEMEN:—Agreeable to your instructions I organized a party to survey an air line from East Saginaw to Port Huron, and commenced work June 18, 1868.

Commencing at the west 1-4 of section 20, on the city line on Janes street, and after running about four miles to judge the magnetic variation of the section lines, I corrected my course to s. 68° east magnetic, which crossed the section lines and streams very nearly as designed and terminated at Port Huron within 200 feet of the point designed.

The line passes about one mile south of the second toll gate on the Vassar plank road, about two miles south of Schnell's tavern at Frankentrost, about 2 1-2 miles north of Hubinger's at Frankenmuth, and very nearly one mile north of Tuscola, crossing from a high bank to a bank of 30 feet lower on the other side; thence it crosses the west town line of Vassar, three miles south of the village of Vassar; thence passing about two miles north of Millington corners through the north-east corner of the town; thence through Watertown about one mile south of the center near Goodrich's mill; thence touching the south-west corner of Rich, the north-east of Deerfield and nearly through the center of north branch about 1-2 miles south of the village; thence through the south-west corner of Burnside, the north-east of Goodland, nearly through the center of Lynn; thence passes through the south-west corner of Brockway, about one mile south of the village; the north-east corner of Emmett, near the center of Kenokee, the south-west corner of Clyde, the north-east of Kimball, into the town of Port Huron, crossing the Port Huron and Detroit Railroad about 2 1-2 miles from the St. Clair River, and connecting with the Port Huron and Flint railroad about 1 1-2 miles from the river and running in on the line of that road, thus running through and touching 19 different townships in the distance of 82 1-2 miles.

TOPOGRAPHICAL FEATURES OF THE COUNTRY.

The country is a uniform table until we get to the north east corner of Millington, a distance of 24 miles, and the line crosses no streams which a cattle guard culvert would not convey, except at Cass River. Near station 1,200 we commence passing a succession of ridges extending northeast and southwest for a distance of six miles, over which this line passed. They extend from Remick Lake on the north. We examined a line one-half mile south of the air line and found a very feasible route passing near Cedar Lake, in the town of Watertown; thence passing down the valley of a small creek, crossing the same at about station 1,661, or 32 miles from Saginaw. From that point the country is uniform until we pass the ridges on the south side of Cedar Creek, which runs in a northwesterly direction about one half a mile south of the village of North Branch.

We cross Flint River near the junction of Squaw and Cedar Creeks, where the banks

are only about 12 feet high, with the valley narrow, and table-land approaches.

At the summit or divide of the waters of the Flint and Mill Creek, about 48 miles from here, the line passes between a ridgy section of country both north and south, but over very feasible land, but may be improved by by being farther south as we fall upon the waters of Mill Creek. From this point the line crosses both the main and south branches of Mill Creek, and keeps upon the south side of the same, and the country for the whole distance, about 30 miles, is of the same uniform character as the first 24 miles out of Saginaw.

I have executed a map which shows the crossing of section lines, and the streams and townships for about six miles on each side of the line, and have marked in pencil the deviations which I would suggest, where the country would afford a very cheap and feasible route. At some points the deviations are about half-a-mile and those from long approaches, which cannot increase the distance over half-a-mile in the whole distance. I have also made a profile of the line where the same was run, showing the levels every 200 feet over the whole distance. The first variation of the line suggested, is starting from here to a better and very easy crossing at Cass River, near the north side of the village of Tuscola, where the line would leave the table land near Mr. Hart's and fall with an easy descent to the banks of the river, passing a little north of the cemetery and the mouth of Perry Creek, crossing the river at right angles; being but 160 feet across the water and 500 feet from top of bank to top of bank, and a depth of river bed below grade of 27 feet. From this point the line can run to the point south described near Cedar Lake in the town of Watertown; thence down a small creek to its crossing near station 1661; thence crossing Flint River at nearly the same place, to a point about one mile south of the village of North Branch, and keeping the valley of Cedar Creek to near Moffit's farm. I think the line will be a good one, as the valley of Cedar Creek, wherever I saw it, was from 1,000 to 2,000 feet wide, and its course is almost parallel with the line. At the summit, passing on to the waters of Mill Creek, I think the line moved 1,000 feet south would be better. From this point to Port Huron there is no difficulty on the route surveyed, but I would vary the line a little to the south at the crossing of Mill Creek, below Brockway, then a few hundred feet to the north to avoid the valley of Pine River, and then to the south at Clyde Mill, to keep out of the ravines that break into the river. By changing the line as above, we keep upon a uniform table, and make the line almost an air line with light work. The profile I have made the whole distance, but have not estimated from it, except to show a sample of similar work, to assist judgment on parts where the line may be changed.

The line has but four crossings of streams of any size: The Cass, Flint and the north and south branches of Mill Creek, and they all have low banks except the Cass, and can be crossed with pile bridges. At all other streams a bridge of from 10 to 25 feet span will pass the water. The estimate of an exploration line must necessarily be made in a great degree from judgment, where changes of line are designed. My opinion is that no grade will be required greater than 30 feet to the mile and but very little of that: most of the whole distance being of very light or almost level grade, over the table country. The rise

from here for 14 miles is 60 feet, almost uniformly making an average rise of from 4 to 5 feet to the mile. Approaching Cass River there is a short distance of 25 feet to the mile. For 11 miles east of Cass River, to the summit between the Cass and the Flint, the country rises 220 feet, or about 20 feet to the mile. For the next 5 miles, the country falls about 85 feet, of 17 feet to the mile. From that point for about 3 miles to the bank of the Flint River, the country is nearly level. From station 1,800, at Flint River, to station 2,550 at the summit between the Flint and Mill Creek, the rise is 120 feet, or an average of about 10 ft. per mile. For the next two miles the country falls nearly 60 feet; for the balance of the distance the fall is 210 feet, or an average of about 7 feet per mile.

The approximate estimate of the grading is as follows:

For the first 22 miles 147,840 cubic yards grading, at 35cts.....	\$51,744
For the first 22 miles, 220 acres clearing at \$30.....	6,600
For the first 22 miles, 66 acres grading at \$150.....	9,900
For the first 22 miles, 25,300 cubic feet in culverts and cattle guards, at 36c.....	9,108
Total for grading, culverts and cattle guards.....	\$77,352

Per mile.....	\$3,516
Fencing per mile.....	640
Cross ties per mile.....	600

Average cost ready for iron per mile.....	\$4,756
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For the succeeding 30 miles I estimate \$5,800 per mile, including Flint River bridge.

For the balance of the distance (31 miles.) I estimate \$5,000 per mile, including Mill Creek crossings.

SUMMARY.

22 miles at \$4,756 per mile.....	\$104,632
30 miles at \$5,800 per mile.....	174,000
31 miles at \$5,000 per mile.....	155,000
Cass river bridge with stone abutments and piers.....	10,000
Total cost of grading.....	\$343,632
Right of way, say.....	12,000
Total.....	\$455,932

SUPERSTRUCTURE.

Per mile, 100 tons of rail at \$80.....	\$8,000 00
Per mile 3,520 lbs. of bolts and straps at joints at 7 1-4 cts.....	255 20
Per mile 4,267 lbs. of spike at 7 1-4 c.	309 35
Per mile laying track.....	400 00

Total per mile.....	8,964 55
Add road bed per mile.....	5,490 00

Total exclusive of depots and equipments	14,454 55
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88 miles including five miles of switches.....	1,272,000 40
Equipments, rolling stock.....	200,000 00
Depot buildings, tanks, &c.....	20,000 00

Total.....	\$1,492,000 00
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THE LAPEER LINE.

I commenced the survey of the line to Lapeer, July 20th, commencing at a point near Mr. Hart's mill, 1 1-2 miles this side of Tus-

cola, about 14 miles from Saginaw, and about one mile south of the air line to Port Huron. The line from this point past Tuscola and Cass River, is described in the suggested alterations of the Port Huron line. From thence the line runs on the east side of Perry Creek, in a direct line to Lapeer, crossing the south town line of Tuscola at the south-east corner of section 34; thence across the angle of Perry creek, crossing the same twice in the north-east corner of Arabella, passing near Beach's mill in the town of Millington; thence through the south-west corner of Millington, the north-east corner of Forest and the South-east corner of Marathon, crossing the Flint River in section 33, about one-half mile from Columbiaville; thence through the town of Aregan, between Bronson Lake and the south branch of the Flint River; thence into Lapeer, intersecting the Lapeer and Port Huron Railroad, one-fourth of a mile west of the bridge on that road across the river.

This line was run as near a direct line as the general features of the country indicated by the map, and other information obtained.

TOPOGRAPHICAL FEATURES.

The country from East Saginaw to Port Huron, as described in the Port Huron line, is an uniform table, with scarcely a fall over 3 feet, with few small streams, and grades not much above a level.

Passing from the table land to Cass river, is a short grade of 25 feet to the mile. The crossing I should make common to the Port Huron line, and is described in that report. The county, from Cass River for 10 miles, near the south town line of Millington, is of a level, uniform table character, and very feasible for a railroad line. From that point through the towns of Forest and Marathon, across Flint river and through Aregan, the line passes through a somewhat broken country, which cannot be estimated from the notes of a strait line as the country often has lakes, bordering which are high, broken hills which may flatten out $\frac{1}{2}$ mile distant from them. The swamps, also, are often deep sink holes that a railroad line must avoid. The country seems to be the same range of hills running N. E. and S. W. that are touched by the Port Huron line further north. The line runs about $\frac{1}{2}$ miles from Otter Lake, in the N. E. corner of Forest, but passes over a few hills about the lakes in section 10; but I think, by keeping a little north and crooking the line slightly to avoid hills and swamps, a good line could be obtained on this route through the town of Forest.

We leave Forest near the north-east corner of section 24 and pass a ridge lying between the outlet of the lakes in section 13 and the Hollenback Valley in the town of Marathon. That ridge may be avoided by following the valley of that creek, which may, however, increase the distance. Another route I partially examined, to make east from the lakes in section 13 about $\frac{1}{2}$ mile north of section 24 through a low place into Hollenback Valley.

The line crosses near Columbiaville, near the same point at Flint river as did the Bay City survey, it being the narrowest place in the valley and about 35 rods wide. I think a through survey might decide a line at another crossing, even though the valley may be wider, by getting the grade lower, as at that crossing there is a hill that borders the valley on this side for half-a-mile either way. With the line in the valley of the creek alluded to, the line could pass over the bottoms of Flint River with a light fill, crossing further north

and almost through the village of Columbiaville. From the Flint river to Lapeer I run the line on the route of the Bay City survey, taking our levels and setting our stakes as before.

After leaving the Flint River for one mile, the country is uniform, but for eight miles beyond to Lapeer, the country is somewhat broken. I judge, however, that by avoiding hills and swamps, a good line can be obtained on that side of the south branch of the Flint River.

Before locating the line I would recommend an examination of a route passing up from Cass River between Perry Creek, and Millington Creek, near Millington Corners; thence just south and west of Otter Creek, and joining the other route about one mile beyond Columbiaville, near the north-east corner of section 57, in Marathon; thence near the south-east corner of section 32, in the town of Lapeer. There is also a favorable country, as far as examined, coming within a mile or two of Otisville, in the town of Forest, but the crossing of the Flint and its continuance I cannot describe, as I did not have time to examine it. The actual length of the line, from East Saginaw to the intersection of the Port Huron & Lapeer line, is 40.07 miles, as measured in the direct line, and the distance to Port Huron, is shown by the numbers on their stakes near our connection, is 47 miles, making by Lapeer the distance of 87.07 miles, which may be increased to 88½ miles by location, against 83 miles, the probable distance by location on the air line, making a difference of five and a half miles in favor of the air line road.

The levels from East Saginaw on the tables to Tuscola, show a rise of about 60 feet in 14 miles or an average of nearly five feet per mile. Beyond the Cass River 13½ miles, we pass the highest ground in the town of Forest, being 235 feet above the valley at the table of the Cass; the ground rises very uniformly at an average of 18 feet per mile. From that point—being the summit between the Cass and the Flint—to the table bank of the Flint, in the distance of five miles the fall is 100 ft., or an average of 20 feet per mile. From the Flint the country raises 70 feet in three miles. At station 1300, or five miles from the Flint, the highest ground passed over is 100 feet above the table at the Flint; from thence the general features are uniform to Lapeer.

My opinion is that the line can be located with no grade exceeding 30 feet, generally direct, and the work generally light.

The approximate estimate for the first 25 miles, or ten miles beyond Tuscola, is as follows:

An average of \$6,152 cubic yards per mile at 35cts.....	\$53,830 00
Total clearing 256 acres at \$30....	7,680 00
Total grubbing 82 acres at \$150	12,300 00
30,000 cubic feet in culverts and cattle guards at 35cts.....	10,800 00
Cass River bridge.....	10,000 00
Crossing Perry creek twice.....	2,000 00
Total for 25 miles, grading and bridging.....	96,610 00
Or about per mile.....	3,874 00
Add, per mile, for fencing and ties.....	1,240 00
Total.....	\$5,114 00

The estimate of the last 16 miles, as I judge, the line can be located, is as follows:

Grading per mile.....	\$3,812 73
Culverts and bridges....	1,000 00
Grubbing and clearing	500 00
Fencing and ties.....	1,240 00

Total per mile for Flint road.....	6,552 73
Add for crossing Flint river & contingencies	500 00

Over 16½ miles average	7,052 73
Average over the whole distance.....	5,882 75
Per mile making a total cost of road bed.....	\$244,120 00
Right of way, say.....	8,000 00

Ready for iron.....	252,120 00
SUPERSTRUCTURE.	

Per mile, \$8,964 55, including laying track for 41½ miles, equal.....	\$372,028 82
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Or about \$15,040 per mile.	624,148 82
Three miles of switch track, at \$10,000.....	30,000 00
Depot buildings, tanks, etc.....	20,000 00
	674,148 82

ROLLING STOCK TO COMMENCE.

Four locomotives, at \$10,000 each	\$40,000 00
Five coaches, at \$3 000.....	15,000 00
Three baggage and express cars, at \$15,000.....	45,000 00
Twenty box cars, at \$900 each....	18,000 00
Fifty platform cars, at \$560 each	32,500 00

Total cost.....\$784,148 82

Our field and office work has occupied seven weeks from the start, and I may here express my thanks for the valuable services of E. F. Guild and F. H. M. Ellsworth as assistants in the execution of the work through the extreme hot season.

Respectfully submitted.

E. G. GODDARD,
Civil Engineer.

Railway Management in Canada.

[From the Toronto Correspondence of the N. Y. Times.]

There is naturally much rejoicing over Mr. Rose's success in placing \$10,000,000 of the Intercolonial Railway Loan on the English money market; but don't it look odd that the first loan should be effected before the route which the railway is to take is officially decided? We do strange things in this Canada of ours, and the Minister of Finance has evidently gone ahead of his colleagues in this loan business. The terms are well enough, but before pay day comes we will find them hard enough, with an unproductive railway on our hands. As a condition of confederation we are under the necessity of taking this intercolonial project, and a sorry project it will prove. The late W. Lyon Mackenzie was not far wrong when he said that the Intercolonial Railway would be useless unless it were shingled over.

I have before alluded to the projected rival lines of railroad, the one from this city and the other from Hamilton, to some convenient point on Lake Huron, so as to accommodate three counties. The Hamilton scheme is known as the broad, and the other as the narrow gauge road, consequently the latter is the most popular on account of its cheapness. Months have been consumed in angry contro-

versy, and making visits to various points along the route, and as both parties are contending for the trade of the northwest section of the Province, it is something of an object to give each scheme a preference over the other. In order to carry out the Hamilton project, the city has decided to transfer its stock in the Great Western Railway to this new one, known, I believe, as the Wellington, Grey and Bruce Railway. The step is rather incautious, when it is considered that Hamilton has suffered terribly by investing in railroads, having sunk an immense sum in three other roads, only one of which is in operation, the other two being worthless. The stock held in the Great Western is bringing regular dividends, and the prospect is that by transferring it the only expectation is that it will never be heard of again, except as dead stock in an unfinished and consequently unproductive line.

Iowa Falls & Sioux City R. R.

Owing to the unwise and illiberal legislation of the last session of the Iowa General Assembly, this road will have to stand still for two years. The Legislature reserved the absolute right to fix the rates of freight and fare at just what they may please to give. The money has been raised to build the road as soon as the restrictions can be removed, but nothing will be done before. The business of the Northwestern road, from Chicago to Clinton, Cedar Rapids and Omaha, is double what it was last year. That Company wished to obtain a monopoly of that business, while the southern members of the Legislature are generally opposed to improvements in the northern part of the State. These were the prime causes that influenced the Legislature in imposing the restriction.

But the interests of the north half of Iowa are more important than any individual interests, or even of those of any single railroad corporation. The south half of the State was first well developed by settlement, and has now better advantages offered by railroads than the fifty counties of the north half of the State.

Whether an extra session of the State Legislature will be had, to correct the imperfect legislation of last winter, we do not know; but we suggest to all the people in the north half of the State to see when the proper time does come that the interests of the undeveloped part of Northern and Northwestern Iowa shall be properly represented. Over twenty counties, in northern Iowa, have waited for ten years for a railroad since the land grants were made, and which were intended to secure their speedy construction.

Now, as the capital outside of Iowa has built all the railroads we have and will build all the main east and west lines we shall have in the future, would it not be good State policy to allow any and all such railroads to be extended across the State without imposing restrictions, which were not applied to the east end of this, nor to any other of the land grant roads running west from the Mississippi.

We make the suggestion, that the kind of restrictions imposed is unjust and unfair to the people of over thirty counties, and if any intelligent citizen, not in the interests of some parties or persons whose pecuniary influence is used in a selfish direction, can successfully controvert the fact that the Iowa Falls & Sioux City Railroad should be built, we would be glad to learn any new facts on the subject. —*Dubuque Paper.*

The British-American Route to the Pacific.

The progress of the Suez Canal and the Pacific Railroad and their approaching completion have given a new impulse to the British Canadian project for a northwest passage through British America, as a means of competing for the trade of the East. It seems to be taken for granted by the English that some new effort must be made to attract a portion of the Eastern trade that promises soon to be diverted into new routes, and the northwest passage through British America offers attractions that are at least worthy of consideration. The route from Great Britain to the East must be shortened if England would retain the commerce of that section, and, as the proposed plan offers a possibility of accomplishing that end, it is invested with no slight degree of importance to the mercantile world. The line, as drawn from the English Channel through the Gulf of St. Lawrence to the head of Lake Superior, and thence to the Pacific Coast and Canton, has the advantage in point of distance, and therefore of economy, being not less than 5,000 miles shorter from point to point than any other route. Further, it is said in favor of this mode of communication, that by means of improvements in the St. Lawrence and a ship canal between Lakes Ontario and Huron, the great advantages of continuous navigation for sea-going vessels to a point on Thunder Bay, at the head of Lake Superior, is secured. As this position is half way across the continent, the benefits to be derived are apparent enough. So far, the route presents no serious obstacles in point of expense and engineering difficulties; but as it will be closed to navigation by ice three-fourths of the year, the undertaking would not appear to offer any extraordinary temptations to capital.

From Thunder Bay to Fort Garry, on the Red river, through a country that constitutes the sources of the St. Lawrence and the Mississippi, the route would be by railroad for a distance of 430 miles. The country, which is of great fertility, is claimed to present no great engineering obstacles, and the climate is temperate. From Fort Garry to the Rocky Mountains, a distance of 900 miles, continuous navigation may be obtained by means of improvements in Lake Winnipeg and the Saskatchewan river. From the Rocky Mountains to the head of Frazier river, which flows into the Pacific, is a distance of about 400 miles, which has to be traversed by railroad.

Under ordinary circumstances the proposed route would enter into serious competition with the American Pacific Railroad, and even with a Panama route. The British line could probably afford to carry passengers and merchandise more economically than its rivals. Out of 2,800 miles between Quebec and the Pacific, there would be only 850 miles, or one-fourth railroad transportation, leaving the remaining three-fourths for water communications. This alone would be an immense acquisition to commerce. But its prospective benefits are neutralized by the consideration of the climatic difficulties that seal up at least the eastern portion of the route during the principal part of the year. In other respects it is, probably feasible, although it is likely that a long time must elapse before the requisite capital for its construction will be forthcoming. It opens a splendid vista of prosperity to the New Dominion, which it is to be hoped it may have sufficient enterprise to realize, at no very distant period.

Journal of Railroad Law.

WHEN COUPONS OF RAILROAD BONDS DRAW INTEREST.

The facts in the late case of the North Pennsylvania Railroad Company *vs* Adams (54 Penn St. R. 94,) were as follows: In 1866, Adams brought an action against the North Penn. R. R. Co. to recover the amount of 11 coupons of \$30 each payable respectively Jan. 1st and July 1, 1861, and Jan. 1, 1862. The coupons read in the usual way. Copies were filed with the affidavit of Adams, that at the time the coupons fell due the company was unable to pay them; that he believed they were presented to the company's office for payment, but if not, it was because they had refused to pay other coupons of the same date, that the company paid one-sixth of the face of the coupons due Jan. 1st, but no more. The company also, by an affidavit by their president, denied any knowledge of the presentation of the coupons for payment, except those on which a payment of one-sixth had been made; that after this payment the coupons sued on were presented and the amount due on their face was offered to Adams, who refused to accept it, unless interest from the maturity of the coupons was also paid. Judgment was rendered in favor of Adams in the court below, and the company took a writ of error.

The opinion of the court was delivered by Agnew, J.—The affidavit of defence in this case avers no possession of funds, and readiness to pay the coupons at the time and place they were payable. The objection to the payment of interest is rested solely on the ground of non-presentation when due at the place appointed. But payment tender and readiness to pay are all affirmative pleas, casting the burden of proof upon the defendant. It has been decided, therefore, in this State and elsewhere, that presentation and demand at the place of payment are unnecessary to entitle the plaintiff to recover, where the defendant has shown no readiness on his part to pay at the place.

The coupons bear interest is decided in the County of Beaver *vs* Armstrong, 8 Wright, 63. In the opinion of Justice Read the language used is, after demand and refusal, indicating the time of the running of interest to be from presentation. But the fact in that case was that interest was recovered from the time the coupons fell due. The 4th assignment in error shows this. The coupons never were presented in New York for payment, the company having provided no funds to meet the interest on the bonds. There being no readiness to pay averred in this case, the court below was right in allowing interest from the time the coupons fell due. The case of *Emlen vs. Lehigh Coal & Nav. Co.*, 11 Wright 76, was decided on the ground that the company had in bank, as found by the special verdict, cash to their credit sufficient to pay the loan to plaintiff, principal and interest and all other debts of the company. There was no question as to the readiness or ability of the company to pay.

—The Council Bluffs and St. Joseph Railroad now runs through trains from Council Bluffs to St. Joseph, the road having been completed last week. This gives Chicago another connection with the Union Pacific through the Burlington & Quincy, and the Hannibal & St. Joseph railroads. By this route, the time to Council Bluffs will be only twenty-seven and a half hours.

The Central Underground Railway of New York City.

The *Scientific American* says "the route is to begin on the easterly line of Broadway, in City Hall Park, running underground in front of the City Hall to Center street, to City Hall Place, under City Hall Place to Pearl street, across Pearl in a curved line to Mulberry, thence northerly under Mulberry to Bleecker street, across Bleecker to Astor Place, thence passing under Eighth and Ninth streets to Fourth avenue; continuing on under Union Square and passing in a direct line to Madison Square, under which it will pass to Madison avenue, as now opened, to Eighty-sixth street; continuing its course in a north-easterly direction to the Harlem river; thence easterly and westerly along the river until it reaches its terminus at the Harlem bridge."

An extract from a letter to the N. Y. *Evening Post* from its correspondent at London (where an underground railway has been for some time in successful operation) will be of interest in this connection:

"You pass by means of it from one end of the city to the other, a distance of several miles, with great celerity and with perfect ease to yourself. The stations are broad, open, well lighted, with well ventilated vaults, where you find yourself quite as comfortable and as much at home as in any other railroad station. The trains pass every two minutes, and once upon them you are soon whisked along the tunnels to your place of destination. It took me only about ten minutes to go from one extreme end of London to the city or the business part, and after my affairs were transacted, about the same time to get back. Fancy a merchant living in the upper end of Central Park, and able to reach Wall street in ten minutes, with infinitely more comfort to himself than he finds in the horse cars or the omnibuses! Well, that in a word is what the underground railroad will do for you as soon as it shall be constructed."

JAPANESE PAPER.—The Japanese are emphatically a race of paper-makers and paper users. It enters into all their trade calculations, and is exhaustive of more of their ingenious art than any other one article. When a collection of the different kinds of paper was made to be sent to the London Exhibition of 1862, no less than sixty-seven kinds were forwarded. It is made to subserve the purposes of the useful as well as the ornamental. Everywhere may be seen paper fans, paper umbrellas, paper pouches, paper lanterns, paper pocket-handkerchiefs, cloaks and windows. The paper strings used by storekeepers, so lately introduced here, have been used by the Chinese for centuries. A short time ago an inventor applied for a patent on a paper hat, and a revolution in *tiles* was promised. But the invention was little more than a theft from our antipodes, for the Japanese wore hats of paper before Columbus saw the West Indies. We now hear every day of the paper lath or ceiling; but in Japan they have used paper walls for time immemorial. Paper among the Japanese is not only an article of trade, but a medium of exchange. Among the wealthy a certain quantity of paper is required to constitute a marriage portion. They manufacture paper from the bark of a certain tree, but not like us from rags. The preparation of it is a curious process, and requires a much longer time than we employ in its manufacture.

The Harvest in England.

[From the Mark Lane Express, of August 8.]

The week opened with a most brilliant day and a clear Italian sky throughout. Monday was a fine breezy day, and a great deal of harvest work accomplished, the corn going up in the finest possible condition. Tuesday was a hot, scorching day, and every hand which could work was fully employed to do something in furthering the progress of harvest. Our advices on that day were as under from the West Riding of Yorkshire: "The dry weather continues, and the turnip crop is all but a complete failure, and getting daily worse. Cattle are on winter food in a great measure, and sadly short of water in many places. Harvest operations are progressing favorably, and farmers should now push on, or the corn will soon shake in the field for over ripeness." From the East Riding it was remarked: "Weather continues very dry and hot, and harvest in this district is now making rapid progress. South of the Humber, a great portion of the crops is already housed; the quality of the wheat this season is very fine, and usually heavy, and when tested by thrashing, the result has generally proved very satisfactory. Spring corn is very various, and on the whole, must prove considerably below the average." From Suffolk—"Quality, weight, and general condition of the wheat superb, yield good. Barley is being secured in fine order. This district promises well for this grain. Hot and dry weather; rain very much wanted." Wednesday was a warm and splendid harvest day. From the east coast of Scotland our advices stated: "Harvest is now quite general in this district; we have a continuance of very hot weather." From the falling state of the barometer, and shift of wind to the S. S. W., a change in the weather appeared close at hand, and on Thursday morning, at 7 A. M., a steady, gentle rain set in, which continued for two hours or more, and the remainder of the day proved showery. This desirable change was everything to the parched country, and may give a little general relief wherever it was experienced; while the temporary check to harvest operations would not prove unfavorable, and would be hailed by every agriculturalist as likely to do more good than harm to any grain yet in the fields. Friday morning was showery, but not much rain fell during the day, and harvest work would proceed again. Our advices from Devonshire stated that the wheat crop was nearly entirely housed, and such was the case also in Cornwall, but in the latter county barley was not all secured. Some heavy storms had been passing during the week. From the West Riding of Yorkshire, our advices were as follows: "Since Tuesday we have had a slight shower or two, but hardly enough to lay the dust. Our harvest is going on steadily, but not fast enough, except where the reaping machines are in full swing, as corn is very ripe, and would be in danger if a strong wind or rough weather should come on." From Lancashire our advices stated: "During the whole of yesterday heavy rain fell in all this district, and there has been more or less downfall in many parts of the country; though cloudy this morning, we have only had occasional showers." From Lincolnshire, near Brigg, our information runs thus: "No rain yet falls in this district, though appearances and the glass have promised some. The grain is being stacked in very fine condition; in fact, it is so dry that great waste is the consequence, for the

sheaves, on being pitched into the wagons, are so dry that an enormous quantity of grain falls on to the ground. Much corn has been lost, especially barley, before it was cut; for the extreme heat ripened it rapidly, and then the high winds necked it, though a greater loss must have resulted if the reaping machines had been unknown." The week closed with a breezy day, cloudy at times, but very little rain fell, and perhaps in no week during any previous harvest was ever so much grain secured, or in finer condition. The farmers, thus fully occupied, have been unable to supply the markets, but the heavy weights of the new wheats are attracting much attention, and for them a sale can always be reckoned on.

The Coal Region of England.

"Monodnock," the admirable English correspondent of the N. Y. Times, returning from a visit to Edinburgh, says:

"The journey from the south of England to the Scottish capital is full of interest. Taking the western route, you traverse a rich and beautiful agricultural country, with its fields now laden with a golden harvest, and plunge into the ugly horrors of the Black Country, which reminds you of the abomination and desolation spoken of by the prophet Daniel. Hundreds of square leagues of land are covered with heaps of ashes, cinders, the waste of coal-pits and furnaces. Factory chimneys, two or three hundred feet high, stretch away like a great forest to the horizon, each belching out its clouds of smoke, while, even in the bright sunshine, the mouths of hundreds of furnaces are tipped with orange-colored flames. Nowhere is the earth so deformed. The whole country is mined. Great towns are over coal pits, and might sink into them. Grimy men and women work in this world of ugliness until they become as coarse, and hard, and horrid as the region they inhabit. Women and children work as smiths, hammering hot iron from morning till night. Women work in brickyards, up to their eyes in wet clay, striking bricks in the moulds, and carrying them out to dry before burning. Woman's right to manly labor is unquestioned in the Black Country. A few years ago women and girls worked naked in coal-pits, harnessed like cattle to the cars. Parliament stopped that—so there is really progress. Still, when I saw groups of women working in a brickyard, doing what is considered the hardest work in the world, the terror of Egyptian bondage, I thought a Woman's Rights Convention in the Black Country might be a good arrangement.

"An English iron manufacturer, some months ago, sent to the Times an account of his observations in the coal and iron districts of Belgium. He found neat and elegant buildings, nice gardens, a beautiful country, and no smoke. The Belgians are too economical to fill the whole atmosphere, over hundreds of square miles, with dense clouds of unconsumed carbon. They burn all their coal, and have a clear sky and bright sunshine into the bargain. The frightfully ugly aspect of this country must be every way demoralizing. Formerly it was notorious for its ignorance, drunkenness and brutality. Respectability tucked up her skirts and fled; the Church sorrowfully resigned her mission here, and sent one to Africa. Of late years the Methodists and teetotallers have been at work, and with considerable success."

MICHIGAN is busied with a large number of local railroad enterprises, which promise to be of great value in developing the resources of the State. One of the most promising of these is the Kalamazoo, Allegan and Grand Rapids Railroad. Mr. F. H. May, the contractor, is progressing finely with the section between Kalamazoo and Allegan, which will be completed by October. Surveys have been completed and the funds provided for the extension of the road from Allegan to Grand Rapids, and the President has been instructed to put it under contract immediately. It will be completed next spring. An important feeder to this road will be the line from Allegan northwest to Holland, and thence north, near the lake shore, to Grand Haven. The part of this road between Holland and Allegan will be built very soon. The distance from Kalamazoo to Grand Rapids is fifty-seven miles; from Allegan to Holland twenty-two miles. The road was completed to Silver Creek, thirteen miles from Kalamazoo, this week. These roads pass through one of the most fertile regions of Michigan, and reach the great lumber country at their northern termini. Thus they will not only have the heavy grain business in the summer, but an equally heavy lumber business in winter. The Michigan Central Railroad will serve as an outlet for both these lines, which, by the way, are owned by different companies, though they have common interests.

LONDON, ENGLAND.—We extract the following compact and suggestive paragraph from the editorial correspondence of the U. S. R. R. & Mining Register, Philadelphia.

"London is a conglomerate formed by centuries of time, races of men. It is impressive in its antique parts, imposing in its new additions. Westminster Abbey, the Tower and St. Paul's are grand and grim wonders of the past; the new houses of Parliament, the shipping docks, the railway depots, are the utilities of the present. The Londoners to-day tread and drive on the Roman roads built eighteen hundred years ago, and also on roads of iron operated with steam-power, the two ways, the old and the new, representing time past and time present. London roads have been trodden since the Christian era dawned, and still London expands in size, advances in improvements; mistress of the globe's commerce and opulent beyond comparison among the cities of the earth, London is in verity a human marvel in its cosmopolitan accumulations and aggrandizements; nor can it be soon overshadowed or outgrown, notwithstanding that, in story, the New Zealander is allotted on London bridge a stand point whence to view the metropolis in ruins."

Receipts of the Western Union Railroad Company, for the week ending August 21:

	1868.	1867.	Inc.	Dec.
Freight.....	\$16,396 74	\$13,300 44	\$3,096 30	.....
Passengers.....	3 914 25	3,182 05	732 20	.....
Express and Tel.	530 00	320 00	210 00	.....
Mail.....	375 00	375 00	.....	.....

Totals..... \$21,025 99 \$17,177 49 \$3,848 50

Receipts from January 1, to August 21:

1868.....	\$429,159 34
1867.....	360,949 00
Increase.....	\$68,210 34

The Future City.

Among political economists throughout the country there seems to be a settled conviction that somewhere in the neighborhood of the mouth of the St. Louis river, on the shores of Lake Superior, there is within the next fifty years, perhaps in less time, a great city to be built, which will have no compeer in this country except New York on the Atlantic coast and probably San Francisco on the Pacific coast.


This fact all seem to admit, and speculation alone is rife as to where it will be located. Without arguing the question, we pronounce that Superior on the Wisconsin shore of the lake, is the place pointed out by nature for it. Its capacious land locked harbor, where the marine of all the lakes can lie in safety; the easy grade from the water front out over the ridge which divides the tributaries of Lake Superior from those of the Mississippi—affording facilities for the construction of railroads unequaled by any other point on the whole lake, make it patent to all unprejudiced observers that if the natural advantages of Superior are improved, she must become the seat of the great city of the North-west.


We have not the time nor space to descant at length on this subject, but we would urge upon those so largely interested here financially, a delegation of whom will most probably assemble here next week, to make such immediate measures for the building of their railroad, as will leave this question no longer an unsolved one.

By building some twenty-five miles of road, they will put this town in railroad communication with the rest of the country within one year's time. By building this twenty-five miles of road they will effectually blot out any future rival in this neighborhood—secure to Superior the trade of Minnesota and Northern Iowa at once, and make this point the lake termini of the Northern Pacific Railroad.

Of the efficacy of this project there can be no doubt, provided they act at once, but a delay of two or three years will give some neighboring point a start which it may take fifty years to counterbalance.—*Superior Gazette*.

"On what a slender thread
Hang everlasting things"

 *Engineering* describes a new process "for laying the dust" in streets, devised by a Mr. Cooper, who among other contracts, undertook the watering for the parish of Marylebone, one of the largest in London, at a reduction of some fifty per cent on the other tenders. Mr. Cooper's system of watering is based upon the principle of utilising the moisture always suspended in the atmosphere by saturating the roads with a solution of deliquescent salts. Upwards of one million gallons of the solution has been distributed over various lengths of road with important and incidental advantages, exclusive of the enormous saving in water and labor. Apparently a sort of concrete is formed of the detritus of the road surface, and the Chemicals employed in the solution, for, although a road watered on this system may appear at first sight to be perfectly dry, upon closer inspection it will be seen that the dust is concreted together in masses too large to be blown about by the wind.

 The roof of a new railway station in London—that of the Midland Railway at King's Cross—is to ordinary roofs what the Great Eastern is to ordinary vessels. Its span is 240 feet, and it is 99 feet from the level of the rails, in the centre. It covers eleven lines of rails and four acres of cellars.

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

CINCINNATI, O

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

Bulletin Boards, STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

Bills Lading,

Way Bills,

Blank Books,

AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as any establishment in the country.

T. F. Randolph,

MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

SURVEYOR'S COMPASSES, TRANSITS, LEVELS,
DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-end package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

R. W. CARROLL & CO.

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BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

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J. MITH, Pres't, C.&I.C. Railway, Columbus, O.
J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indiana, Aug. 2, 1867.

THE

STEAM SYPHON PUMP

IS THE

Most Simple, Effective and Durable Device for Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	3,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,33pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

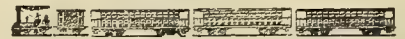
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:30 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:30 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

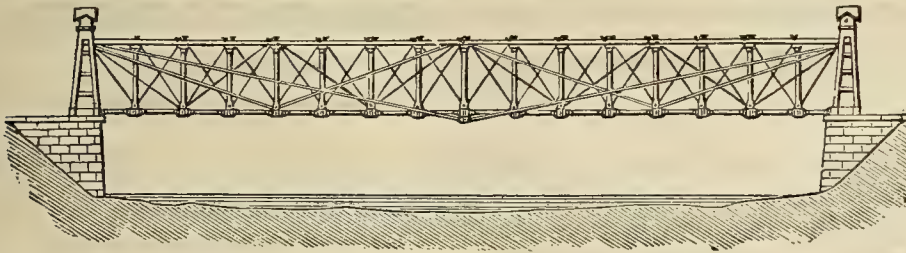
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

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OIL LANDS,

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Productive Wells all

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MANUFACTURERS, IMPORTERS & DEALERS

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MACHINERY OF EVERY DESCRIPTION

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RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

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BUSH & LOBDELL,

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Chilled Wheels and Tyres

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Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

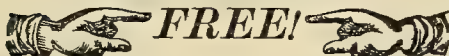
PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '87.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENTES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

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Cambridge City & Chicago Express...	7:00 am	10:50 pm
Indianapolis and Cairo Express.....	7:00 am	2:30 am
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Springfield, Quincy and St. Joseph Express.....	2:20 pm	4:08 pm
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St. Louis Lightning Express. Sunday instead of Saturday night.....	8:50 pm	6:15 am
No change of cars between Cincinnati, St. Louis and Chicago.		
Elegant Sleeping Cars on all night trains.		
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Lawrenceburg.....	4:45 pm	2:20 pm

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Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON, }

CINCINNATI:
THURSDAY, SEPTEMBER 3, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

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MORNING EXPRESS..... 7:00 P. M. 6:10 A. M.
NIGHT EXPRESS..... 6:00 A. M. 6:00 P. M.

LITTLE MIAMI.
Lightning Express..... 7:00 A. M. 4:35 P. M.
Express Mail..... 8:30 A. M.
Columbus Accommodation..... 3:50 P. M. 10:20 A. M.
Morrow Accommodation..... 5:20 P. M. 8:00 A. M.
Lightning Express..... 8:00 P. M. 10:35 P. M.
Night Express..... 6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.
Lightning Express..... 7:00 A. M. 7:25 P. M.
Express Mail..... 9:30 A. M. 5:25 A. M.
New York Express..... 8:00 P. M. 8:35 A. M.

MARIETTA AND CINCINNATI.
Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City

Night Express..... 12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail..... 7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail..... 7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation..... 3:55 P. M. 10:00 A. M.
Loveland Accommodation..... 5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.
Toledo, Detroit and Canada..... 6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada..... 6:30 P. M. 6:10 A. M.
Richmond and Chicago Mail..... 7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp..... 5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City..... 6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City..... 5:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago..... 3:00 P. M. 5:30 P. M.
Bellefontaine and Sandusky..... 6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky..... 3:00 P. M. 10:30 A. M.
Hamilton Accommodation..... 6:30 P. M. 7:55 A. M.
Dayton Accommodation..... 6:30 P. M. 10:30 A. M.
Dayton Express..... 5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.
Day Express..... 7:20 A. M. 7:05 P. M.
Night Express..... 5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.
Connersville, Cambridge City and Indianapolis Mail..... 6:15 A. M. 10:20 A. M.
Connersville, Cambridge City and Indianapolis Express..... 5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.
Chicago and St. Louis Express..... 7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.
St. Louis, Cairo & Louisville..... 7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex. 5:45 P. M. 6:10 A. M.
Louisville Special Train..... 3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.
Mail..... 7:00 A. M. 4:10 P. M.
Caboose Accommodation..... 3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.
Express..... 6:00 A. M. 6:00 P. M.
Lexington Express..... 2:00 P. M. 10:50 A. M.
Falmouth Accommodation..... 6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.
Express Mail..... 7:00 A. M. 6:15 A. M.
Fast Express..... 8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express..... 8:00 P. M. 10:35 A. M.

Progress of Population per Area.

MANUFACTURES OF THE WEST.

In some recent articles on the "Great City" of the future, suggested by Mr. Scott's pamphlet, we spoke of the center of population. There is another problem of common interest and remarkable results. This is the *increase per square mile*. In order to show some of these results, we give the following table, derived from the United States census:

	Popul'n per square mile.	Increase per sq. mile from 1850 to 1860.
1. Massachusetts.....	157.	30.33
2. Rhode Island.....	133.	20.74
3. Connecticut.....	98.4	19.12
4. New York.....	84.3	17.03
5. New Jersey.....	80.77	21.93
6. Maryland.....	77.4	11.06
7. Pennsylvania.....	63.	12.93
8. Ohio.....	58.	8.99
9. Delaware.....	52.	9.76
10. Indiana.....	39.9	10.72
11. New Hampshire.....	35.1	.8
12. Vermont.....	34.7	.11
13. Illinois.....	30.9	15.54

This table is very curious. We see the two most populous States in the Union (per square miles) *increasing the fastest per square mile*. Taking the square mile as the standard, and Massachusetts and Rhode Island increase faster than Minnesota, Iowa, or Missouri. This is certainly contrary to the popular idea, because we have heretofore taken the rates of increase by population only. If Ohio had the same increase per square mile (30) that Massachusetts had, Ohio would from 1850 to 1860, have increased 1,200,000! The difference is, that Massachusetts is a manufacturing and Ohio an agricultural State. Manufactures create towns; and towns make a denser population than can be found in merely agricultural districts. Here then we find a new element in eliminating the future of the Western States? How far can they become manufacturing States? The manufactures of New England, New York, and New Jersey, are chiefly of woolen, cotton and leather. There is no remarkable amount of materials for these found in those States; and if we inquire into the origin and progress of manufactures there, we find that the causes were two: 1. Superior capital; and—2. Water power. If we look into the relations of these elements to the Central West, especially the Valley of Ohio, we shall see that a new era is about to rise there; and we shall see that it is inevitable. Let us analyze it a little.

1. *As to Capital*.—Within the last twenty years, a great change has taken place in this respect; capital has accumulated very rapidly, especially in the commercial capitals—Cincinnati, Cleveland, Louisville, etc., etc. Millionaires are no uncommon people in the West now. Heretofore, this capital has gone almost exclusively into commerce, especially during

the war, when so much money was to be made by contracts. Nevertheless, a great deal did go into mechanical and manufacturing operations, particularly that of wood and iron. Mr. Scott said in his pamphlet on the "Future Great City," that the manufactures of the West had increased 100 per cent. at the last census. This is true, but they increased chiefly where population was dense and capital was accumulating.

In order to understand the increase of manufactures in the West, we present the following table of the value of products in several States in 1850 and 1860:

	In 1850.	In 1860.
In Ohio.....	\$62,647,259	\$121,691,148
“ Indiana.....	18,922,651	41,840,434
“ Illinois.....	17,236,073	57,580,887
“ Michigan.....	10,976,894	32,658,356
“ Wisconsin.....	9,293,068	27,849,467
“ Kentucky.....	24,688,483	37,931,240
“ Tennessee.....	9,728,438	17,987,225
“ Missouri.....	23,749,265	41,781,651
“ Iowa.....	3,551,783	13,971,325
Totals.....	\$180,693,914	\$393,291,733

The increase is 118 per cent. in these great Central States. This is nearly three-fold the increase of population! We produce this table for the purpose of showing that capital has so accumulated in the Central West, that it is already fast turning into the channel of manufactures. But, as might be inferred, these manufactures are at first of the simplest and heaviest kinds, which are more profitable to make near the raw material. The following are some examples of the increase of manufactures in Ohio.

	Increase.
Agricultural implements.....	382 per cent.
Pig iron.....	125 “
Salt.....	300 “

We need not cite particulars; for it is well known, that in the West the increase of manufactures from iron and wood have increased enormously.

2. *Of Water Power*.—There is water power enough in the West; but, the point we wish to bring up here is a very different one. It is that *steam*, except in a few localities will everywhere be adopted, as the *power* by which machinery may be used. In such places as Lawrence, Lowell, Niagara, Rochester, etc., water may be the preferred power, but more than nine-tenths of the manufacturing will be done by steam, and why not? Why does New England prefer water? Simply because water (on account of the ease of making permanent dams) is cheap, and coal dear. But, in the West, it is exactly the contrary: dams are difficult to make, and water power comparatively dear; but coal is very cheap—but that is not all. Coal is so cheap, that the cost of *power* for manufacturing is really but a small item in the general calculation for a large factory. In much of the West, coal is at the door. In nearly all the Central West, can always be had at \$3.00 per ton. Now this being the case, there is no limit to manufac-

uring in the West for want of cheap power. It is as cheap as need be.

3. We now come to what is the great advantage of the West for manufacturing, the *abundance of raw materials*. In this the West has an incalculable superiority over the whole Atlantic region. 1. The supply of coal is such, that every part of the West can have fuel and power for machinery at the cheapest rates. 2. Iron, in Ohio, Kentucky, Tennessee, Illinois, Missouri, etc., abounds in the greatest quantities, accessible both by water and rail. In fact, it is not easy to conceive that it can be more abundant or more accessible in any part of the earth. Hence, the iron manufacture is increasing throughout the West, as it does in Pennsylvania.

It will be observed by the table above, that Tennessee is the State which has increased less in manufactures, when it is the very State which has the greatest possible means of manufacturing. East Tennessee has an incalculable amount of coal, iron, zinc, and copper, etc. Why have not great manufacturing towns risen up there? For want of capital. And why has not capital gone there? Simply, because for want of the *Southern Railroad* from Cincinnati, it has no accessible market for manufactures. That is the whole of it; but, some time or other that will come. 3. Wool, cotton, flax, why does New England monopolize these. Heretofore, because capital preferred to work near home. But, these materials can be got cheaper near Cincinnati, than they can, near Boston. Hence, Western capital will not go the other side of the mountains to manufacture there. Already 150,000 bales of cotton per annum *pass through Cincinnati* to go to the Atlantic. Cotton, therefore, can be got cheaper here. Wool can be got cheaper too. Ohio has 7,000,000 of sheep, and the number is fast increasing in the West. Once begin to build woolen factories in Ohio, and we shall almost monopolize the woolen manufactures of the country. But, why do we not manufacture flax? Will some one answer? Millions of pounds of *flax fiber* go to waste in Ohio, because there is nobody to manufacture. This will not be long so. We have shown in this article, that the manufacturing States really *increase most per square mile*; and we have shown the great capacity of the Central West for manufacturing. Let our wealthy commercial men take hold of this, and make a harvest before competition reduces profits, as in a few years it must do.

— A company, consisting of James Stinson, of Chicago; Robert H. Burdett, late President of the Erie Railroad Company; General Walbridge, of New York; Messrs. Bright, Corcoran and Riggs, of Washington, and others, has been organized to build a wagon road from the head of Lake Superior to the Red river of the North. They propose to ask Congress for a land grant.—*Cincinnati Times Sept. 2.*

Activity of Railroad Building in Michigan.

A gentleman of this city, quite intelligent upon Railroad affairs, traveling through the State of Michigan, writes us under date of Aug. 27th, says:

"You can scarcely imagine the activity there is in Railroad building here. Nearly, or quite all the old projects, that have laid still for years, so that many of them were thought irretrievable, have revived with great vigor, as though their long sleep, was only to gather strength for this struggle for life. New schemes are laid out, and taken hold of by the people directly in its interests, and men ripe in experience and with ready means.

During the past year legislation has been very favorable for the success of these roads, and the whole people are alive to their importance with the true spirit of enterprise.

Thus far they all seem to go along well, and give the best of indications that they will succeed. We see nothing in their way, and unless some unforeseen national troubles interfere, a few years more will witness the lower peninsula of Michigan one of the best railroad supplied States in the Union.

Among the works in the greatest activity, are the Detroit & Howell; East Saginaw & Pere Marquette; St. Joseph Valley; Kalamazoo, Alligan & Grand Rapids; Bay City & Port Huron; Port Huron & Chicago Air Line; Grand Rapids & Indiana; and, there is some talk about a work from Jackson to Fort Wayne, and a great deal of agitation about a consolidation of the old Amboy, Lansing & Traverse Bay road, into the scheme recently concocted in your city, viz: the Cincinnati & Mackinaw road. This project would certainly be one of the very best in the State, and under the suggestions in the RECORD of the 20th ult., would be a strong work, and one that would be second to none for the interests of Cincinnati."

Although the letter from which the above is extracted is a private one, yet we have taken the liberty of using so much of it, that our readers may see the activity of the people of our sister State in completing their well devised railroad system, and the interest they feel in connecting with this city by the line we have recently so earnestly advocated as the best, because it would embrace four partly completed lines, and as the shortest, being the most direct yet contemplated, and almost an air line, to the lumber, salt, fish, and mineral supplies of the North.

This line of road rises in character the more intelligent we become upon it, and we think its merits, need only to be known to our enterprising men, to secure their interest in its behalf.

It is five hundred miles of road with as many desirable features and valuable railroad connections as any line of equal length leading

out of this city. The country through which it passes is fertile with all that sustains a dense population, renders them wealthy and active, and gives such a project productive support. It drains an area of territory demanding such a work, not now well supplied even by indirect thoroughfares, and that is in such a state of advancement as will be quickly stimulated to its capacity by the success of such a scheme. And it is free from heavy grades, objectionable curvature-bridge structures, or heavy cost.

Let any one look over this line upon the map, then refer to the census, and learn the topography of the country, and we predict, he will wonder, why a line of road supplying so many people, through such a region was not built long since.

Again, it is the principal, if not the only line necessary to construct north of the Ohio river, to complete that system of roads, which will be completed by the Southern interests we are again agitating, and will make Cincinnati, the focal trading point of the products of the extremes of the continent, as well as of intermediate latitudes; the centre of as rich a territory in all that makes up our busy, thriving, prosperous life as there is compacted upon the globe. It will make Cincinnati the commercial point of a larger region of country; and more people, than any city in the world, and sustain her forever in the position she holds to day, as the Metropolis of the Great West.

Another Southern Project.

The *Toledo Blade* gives a letter from a gentleman intelligent upon Southern Railroad affairs, to the Hon. JAMES M. ASHLEY, in which he solicits the co-operation of the Hon. James in presenting to the people the project of building a road from "Charleston, S. C., via Columbia, through the Blue Ridge or Smoky Mountains to the sources of New River; thence down New River to Gauley; thence to Parkersburg, W. Va.; thence to Athens, Ohio, and through the counties of Perry, Knox, etc.," in a favorable direction to reach Toledo; or from Zanesville through to the Lake at Cleveland.

This writer says, the route to the Ohio is practicable, and passes through a country wonderfully supplied with resources for such a work, and that the requisite legislation for South Carolina is already had, and can be secured through such other States south of the Ohio as the line may pass through.

The desire seems to be a road from Lake Erie to the sea.

The *Blade* commends the scheme to the people interested, and particularly to the enterprising men of Toledo, and very sensibly remarks, in substance, that such improvements to bind the North and South together

are the most effectual means of perpetuating the Union, and securing its largest prosperity.

By reference to the map, it will be found that the line suggested is a good one, in being direct, and touching points of importance, and supplying a country of ample scope and resources to sustain the road when completed.

The topographical indications are, that the work through the Smoky Mountains would be very heavy, and incur steep grades, and a considerable extension of the line by curves. Though it may be, and indeed is, quite possible, that an easy and direct pass may be found to the head waters of New River.

The direction for such a line to take northward from the Ohio river, is to intersect the south terminus of the Newark, Somerset and Straitsville road, a scheme recently projected, upon which there is about twenty miles of grading, and considerable local means secured to advance the work. This would pass through the iron, salt and coal region of the famous Hocking Valley; and go directly through the great Straitsville coal beds, among, if not the largest and best coal and iron deposits of the continent, and on through an old settled and productive part of Perry county; touching Somerset, a very desirable point; thence to Newark, in Licking county, now one of the most thriving interior towns of Ohio, and with prospects equal to any other on the whole line of the road. At this point commences the Sandusky, Mansfield and Newark road, one of the old roads in Ohio now in excellent condition, and admirably managed, by which the line reaches lake navigation at Sandusky Bay.

From this point, or a few miles south, on the C. & T. road, Toledo can be supplied with coal of the finest quality, and in the quickest time, and with less cost to herself, than by any other project we know of, and be placed in connection with the great Southern interests, and a new port on the sea board.

Such a line of road as we have here sketched out, would cross at favorable points every through road in Ohio, and be in connection with Cincinnati, Columbus, Chicago, Dayton, the great western cities, and the cities of the lakes.

There is but one great arterial line yet concocted that is superior to it, viz.: the line from Pensacola to Cincinnati, and the Cincinnati and Mackinaw as the northern half of the scheme. These touch the extremes of the nation, the Gulf and the upper Lakes; in other respects they are very similar, yet in no ways conflicting.

We hope our Toledo friends will not follow the example of our city in these matters, and shilly shally away a quarter of a century; but grasp the project at once, take the initiative and go ahead.

Spirit of the Metropolitan Press.

The past ten days have witnessed a more vigorous and general effort on the part of the daily Cincinnati press, in behalf of public improvements, than they ever made before within the same period.

This we regard as a good omen, and if persisted in must be productive of good results to themselves and to the city. The times seem opportune for a renewed discussion of these questions. The city public will turn away almost any time from the perpetual political dosing, and consider questions that involve their material prosperity; that embrace the anxious thoughts of what shall we do; where shall we live; how shall we live, and what are the prospects for the coming years.

The *Commercial* says in an article of great force, most of which we publish in another place in this number:

Look at this, from a letter written by Mr. Bowles, editor of the *Springfield Republican*, at Denver, Colorado, August 9:

"Chicago, so recently the western end of railway lines, now stands in the very middle of east and west railroad communication on the continent. In round numbers it is 1,200 miles from Chicago east to Boston, and also 1,200 miles from Chicago west to the present end of the Pacific Railway. Her western arm is rapidly increasing; last week we saw the rail laid that rests on the summits of the continental mountains; and now the iron line is following the waters that flow into the Pacific Ocean. Soon Chicago will belong to the East in dividing railway travel across our continent; but for the hour she stands in the center, and looks both ways with supreme satisfaction as a sort of umpire queen, and broods benignantly over the commerce of the hemisphere. In the fashionable trip of the season to see the new regions that the railway has annexed within these two years of our business and social life, Chicago is also the resting-place and the starting point. We divide the journey there; the old ends there, the new begins. But how lately was the old new, and the new unknown?"

And we, out of the way here, are debating whether we will allow a railroad through one of our streets—whether we shall deny the roads the privileges that they have in Philadelphia, Baltimore, New York, and every other city on the continent not utterly and hopelessly one-horse.

The *Times* in a racy review of an article upon the Cincinnati and Mackinaw Railroad, says:

Let those who are interested in the prosperity of Cincinnati take hold of this enterprise with energy.

Place no obstacles in the construction of the Railroad bridge over the Ohio, without which this proposed grand axial road cannot be perfected.

Consolidate the interests of the patrons of the road extending from Covington to Nicholasville, and partially built to Danville.

Give a bonus of one million of dollars to the consolidated corporations, provided they will complete a road to Nashville, Tenn., within the next two years—and then via Decatur, Ala., we gain our objective point, Pensacola.

Great interests are at stake—the prosperity of Cincinnati is in the scale. Shall we falter when the object is so nearly gained.

The *Chronicle*, commenting upon another article upon the same scheme, remarks:


In another column, we give a second article on the "Cincinnati and Mackinaw Railroad," from the last number of the *RAILROAD RECORD*. It contains suggestions of a practical character which is well worth the while of our capitalists and business men to consider. Rival cities are straining every nerve to avail themselves of the apparent inertness of Cincinnati to these matters. We seem to be looking on with listless indifference, while new railway combinations are formed, and new enterprises projected, which threaten to deprive us, in the not distant future, of the pre-eminence we enjoy among Western cities.

We need a great awakening on these business affairs. There is sufficient enterprise and foresight, we doubt not, to avert all these threatened dangers, if attention is properly directed to the subject, and the public mind aroused by discussion and reflection.

And in a slashing review upon the foggyism of the city, it says:

We have young, active, enterprising business men in Cincinnati, but, unfortunately for the city and its future, the wealth is not in their hands. The conservatism of age and inherited and acquired wealth is upon us. Mortgage notes are in demand, and millions of dividend-paying stocks are ours, to say nothing of great numbers of tenement houses, which retard the growth, injure the beauty, and affect the health of the city. We are not the victims of poverty, but of age. If our city had not been founded before 1840 we would now have been on the high road of progress. We would be dingling it in the ears of everybody (and make them hear us too), that our city possessed superior advantages over all other places; that our river was a thing of beauty and wealth, and that our hills were the most delightful places for residences in the world. We would have bridged the Ohio, and ere this our iron horse would have crossed the Tennessee line for the great Southwest, and have leaped the mountains on his course to Richmond. The whistles of locomotives would have aroused the slumbering Indian on the shores of the Mackinaw.

The *Enquirer* had a well condensed article upon the Northern Railway, in its Railroad column. We hope the interest will be continued.

 The Bellefontaine (Ohio) Republican says: "During last week and this, a portion of the track of the Bellefontaine and Indianapolis Railroad, some 250 feet long, a short distance west of Silver Lake, in Logan County, has sunk some sixteen feet, and the ground, twenty-five feet from the track on both sides, has sunk with it; and beyond that the earth has bulged up some ten feet. Trains passing over it have all been brought to a stop before crossing it, and the track has been raised by 'cribbing.' Fish, from twelve to eighteen inches in length, have been seen to jump out of the water that has appeared in some places where the earth has sunk. Piles forty feet long are now being driven, on which to build a permanent track. How to account for the phenomenon is an open question. Subterranean lakes, streams or marshes, doubtless have something to do with it."

Railroad Tracks in the City.

We copy the following ironical and spirited article from the Cincinnati *Commercial* of the 2d inst:

"A considerable number of the business men of Cincinnati would, we think, regard it as an achievement in which it would be honorable to distinguish themselves, to annihilate all the railroads within a circuit of twenty-five miles of our suspension bridge. There is bitter opposition to the laying of rails in Front street, so as to connect our Eastern and Western roads, and all imaginary grievances are being magnified, and urged by able attorneys.

Railroads are unpleasant. In the first place, they are noisy. Then, if persons will remain on the track until the cars come along, they will be hurt. The smoke from the locomotives is disagreeable. The article of smoke from a locomotive is as offensive as that from a manufactory. The ringing of bells and shrieking of whistles in the street disturb the nerves. Persons have been known to have their dreams broken up by the passage of cars in the street. BYRON, in his famous description of the night before Waterloo, spoke of the opening roar of the artillery being mistaken for the rattling of the car on the stony street; and yet BYRON had no experience of railroad noises.

In many particulars we suspect a country residence is superior, so far as quietude and cleanliness are concerned, to a city residence. Indeed we are led to believe that some noise and some dirt will in all probability for some time mingle in the transaction of a large business. The only way, then to render Cincinnati a perfectly comfortable place of residence, is to destroy her business altogether. If there is nothing to do here, she will be quiet, and not so dirty as she has been. As a preliminary step to winding up the affairs of the city, and giving our down-town streets an air of suburban elegance and retirement, we can think of nothing more likely to be effective than to prevent the connection through Front street of the Ohio and Mississippi and Little Miami Railroads.

We are already pretty well off the track of trade and travel. Cincinnatians coming West by the Northern roads find, when they switch off at Cleveland to make their way home, that they are on a side track. The high road runs to Chicago. The way to New Orleans, as well as to San Francisco, is by Chicago. And when we are as near home as Columbus, traveling the Central Pennsylvania and Panhandle line, we find passengers for Louisville dodging Cincinnati and going by way of Indianapolis, so we are stagnant and out of the way. And Chicago, far less favorably situated is securing, through the energy of her people, a magnificent position.

Cincinnatians traveling East, this summer, had the opportunity, in every hotel and railroad office, of seeing how rapidly their city was sinking from public view. They could not look at a railroad poster without being reminded that Cincinnati was no longer a place of the first consequence. Where the name Cincinnati was found on the posters—and very often it was missing when all the important points were supposed to have been enumerated—it was in small letters, while Chicago, St. Louis, Cleveland and Columbus, Indianapolis and Louisville, had far greater conspicuity.

We have fizzled on the Southern Railroad question—and the stronger the case has been presented, the weaker the stomach of the people has become. Louisville is grasping for the Southern trade that is ready to be poured upon us, and her energy will be rewarded. Then she is building a railroad almost to our doors, on the south side of the Ohio River. This, if we had a railroad bridge across the river, would afford a most valuable Southern connection. Without such a bridge it will do us little good. We are not now going into the question of "long span" and "short span." We want the bridge. Practically, we are not getting it. Nothing can be done toward spanning the river here with a railroad bridge, because it is alleged that with a span of a certain length, navigation would be obstructed. At the same time a bridge is being built at Louisville that we have repeatedly shown will fairly blockade the river against us. Then all large steamboats must, at all seasons, stop at Louisville, making that point substantially the head of navigation on the Ohio, until the canal is greatly enlarged; and then, as we will not have a railroad bridge here because it would trouble the amount of river commerce that might remain after the blockade at the falls, and as there would be a railroad bridge at Louisville, absolutely all the Southern travel would avoid us and go by way of Columbus and Indianapolis to and through Louisville.

If the true Cincinnati policy is quiet and neatness—if we are too refined to endure noise and smoke—if we are to make the present site of the city as favorable a spot for rural enjoyment as may be found in Hamilton County—if the inhabitants of the suburbs are expected to turn their attention, presently, to the superior inducements held out in Cincinnati for picturesque pic-nicing—if the city is to be as remarkable for decay as it has been for growth—this is all well. On the other hand, if it is upon the whole desirable that we should continue to grow, and take advantage of our position as the central city of the continent, we must get over our squeamishness about cars in the streets—we must have through connections from East to West and North to South, along the streets—and not be afraid of trains of cars moved at good speed by locomotives. We confess there are spectacles that offend our sight more seriously than locomotives harnessed to ponderous trains and dragging them in the midst of shuddering old fogies and appalled peanut merchants. Then we want the Southern railroad; and that it may be worth something, a railroad bridge across the Ohio. We want, also, the Mississippi bridged at St. Louis, the Ohio and Mississippi road reduced to the ordinary gauge, and that we should either have a complete Central Pacific Railroad, or that a St. Louis and Cincinnati branch should connect with the Chicago line to San Francisco (for that is the real name of it), so as not to compel all the Pacific coast travel to strike the high latitude of the lakes, but permit the major part of it to pass through the valley of the Ohio."

We are not so sure but this is about as good a way to treat the apathy of our people as any other. Arguments, persuasion, the progress of rival points, the combination of interests against us, have all been presented over and over again, until they fall like point-less shafts, ineffectual at our feet.

The Railroads centering at this city, must

connect somehow, and if there is one way better than another, that should be sought out, and measures taken to secure it. For this purpose and to serve all the railroad interests, and those of the city, we have from time to time advocated the tunneling of Sixth street. And to make the city fathers and the railroad managers intelligent upon the value of this project, we have circulated hundreds of papers, containing maps and suggestions, and calculations upon this work.

Recently we have had the calculations for this undertaking made by a competent engineer of this city, and are corroborated in our early speculations upon its cost, grades, and conveniences to the city and to the railroads. However, any connection better than none; and any activity better than listless indifference.

We are pleased with the support of our powerful daily cotemporary, and hope it will persist in the cause.

The Cincinnati, Hamilton and Dayton Railroad and its Managers.

To the Editor of the Commercial:

Why the stockholders of this company have stood by so complacently, apparently contented with its great natural advantages without availing of opportunities for securing others, or retaining those it now has, even with new combinations forming directly before their eyes, which are sure to circumscribe still more its territorial connections and business is, most remarkable.

The managers cannot plead ignorance, for the impending danger has been urged upon their attention for more than two years past. And what have they done, or what are they doing to avert it?

Already flanked by the enterprise of rival roads for a west and north-west traffic, they are about to be surrounded, and compelled to divide with a friendly line the business from their northern connections. Want of sagacity, absence of enterprise and energy, if not timidity, seem to govern. Is there any other reason than want of confidence in its management which keeps the stock of this company at its present low price?

STOCKHOLDER.

MR. EDITOR: The above indicates foresight and enterprise on the part of some of the stockholders of that company. They doubtless see and feel the folly of their past course in seeking by large outlays to defeat the construction of the Short Line or Tunnel road to Dayton, and the importance to their company of uniting with others as now proposed in making the Short Line to be used in common in reaching the only practicable point for a Railroad River Bridge to Newport, Ky., to secure Southern connections.

The Cincinnati, Hamilton & Dayton Co., by making a branch to Sharon, from Hamilton, can furnish its connections, viz: Junction, Eaton, Toledo, and Atlantic & Great Western railroads with this Railroad Bridge.

PROGRESS.

Virginia Springs.

IMPORTANT RAILROAD CONTRACT.

GREENBRIER SPRINGS, W. VA., August 30.—The Commissioners appointed by the States of Virginia and West Virginia, in session here, have contracted with the Virginia Central Railroad Company to construct a new road to the Ohio River. The name of the Central road is now extinct, and both roads are to be known as the Chesapeake and Ohio Railroad Company. Edward Fontaine is President, and Col. H. D. Whitcomb, Chief Engineer and Superintendent. Operations are to be commenced immediately, and the road will be completed in three years.

A few months since, a full review of the condition of the work was presented to our people, who then gave it the customary courtesies, and passed it by, among the things that promise the future greatness of our city; and that we had kindly entertained long enough to resolve into the hands of a committee, and as a natural consequence into obscurity, and threatened death.

But through its own inherent vitality, and the zeal of parties, whose interests are foreign to our city, this great scheme is reviving, and now, we hope, in such an organized condition as to secure its completion within the time specified, to the Ohio river. Once there, it will be met by some means, and the idea as conceived years since, and recently revived, will be in full vitality.

We hoped some of our enterprising men would have engaged in this undertaking, as it promises great profit, and they could have cared for the interests of our city as the work advanced.

This scheme thus revived is another indication of the signs of the times. A number of roads commenced years since, possessing merit, fell victims to bad management, or the disturbed affairs of the country, are now being resurrected by liberal donations on the part of the local interests to parties who will complete them. Such liberality on the part of the citizens, whether as individuals, or as townships as in Michigan, or counties and cities as in our Southern States, will attract good strong parties to their aid, and so strengthen them as to make their efforts a speedy success.

This work will probably go on for some time without any great aid from our people. In the meantime, let us come up liberally to the support of the Southern road, and to its complement, the Northern half of the great axial line, the Cincinnati & Mackinaw road. These great works, will stimulate such local improvements as are the necessary and proximate results of their success; and will render us both able, and willing to give assistance to the Covington and Ohio when it is most needed.

The Pacific Railroad.

A NEW CLAIMANT.

The following shows that the poet was ahead of the scientific man in the predictions that the Great Pacific road would be built.

This is not the first time that the flights of the poet's fancy, has been the *Avant Courier* of the man of facts. The imagination leaps ahead, lives beyond its time, prophecies in the ideal, things that the great plodding world only reaches through slow development. The one is inspiration the other hard fact. Each necessary to the other, and both necessary for man's good:—

To the Editor of The Tribune:

Sir: I notice a paragraph going the rounds of the newspapers, paying a tribute to "the man who foresaw, nearly a generation ago, the future possibilities of this country," and who "exhibits as curiosities, writings, in which he predicted, as far back as 1847, the eventual building of a Pacific Railroad across the continent." His name is Dr. Carver, and the paragraph calls him the "Father of the Pacific Railway."

I beg leave to say, that I am a great way ahead of the Doctor in the prediction of this great enterprise, now hastening to its completion. In the early part of 1838, nearly *ten years before*, I wrote as follows in the editorial pages of my blessed old KNICKERBOCKER MAGAZINE:

There will yet be built a railway from the Atlantic to the Pacific. Let the prediction be marked for the work will be accomplished. This great chain of communication will yet be made with links of iron, "long drawn out." The treasures of the earth in that wide region are not destined to be lost. The mountains of coal, the vast meadow seas, the fields of salt, the mighty forests, with trees 290 feet high, the stores of magnesia, the crystalized lakes of valuable salts, these were not formed to be unemployed and wasted. The reader is now living who will make a railroad trip across this vast continent. The granite mountain will melt before the hand of enterprise; valleys will be raised, and the unwearying firesteed will spout his hot white breath, where silence has reigned since the morning hymn of young creation was pealed over mountain, flood, and field. The mammoth's bone, and the bison's horn buried for centuries, and long since turned to stone, will be bared to the day, by the laborers upon the Atlantic and Pacific Railroad. Rock, which stand now as on the night when Noah's deluge first dried, will heave beneath the action of "villainous saltpeter," and where the prairie stretches away, like the round ocean girdled with the sky, with its wood-fringed streams and flower-enameled turf, and its herds of startled buffaloes, shall sweep the long hissing train of cars, crowded with passengers for the Pacific seaboard. The very realms of chaos and old Night will be invaded. While in place of the roar of wild beasts, and the howl of wilder Indians, will be heard the lowing of herds, and the bleating of flocks. The plow will cleave the sods of many a rich valley and fruitful hill, while from many a dark bosom shall go up a pure prayer to the Great Spirit,—"whose abode is the heavens,

Whose wampum of peace is the bow in the sky."

I should like to know of Mr. Cisco or Dr. Du-

rant of the Union Pacific Railway if they have any earlier prediction of the building of a Pacific Railway than this from the pen of yours truly.

L. GAYLORD CLARK.

New York, Aug. 22.

Cincinnati, South-western and Chattanooga R. R. Co.

JASPER, TENN., August 27, 1868.

The Cincinnati, South-western and Chattanooga Railroad Company is perhaps, a little unknown to most of the readers of the Commercial. As it is quite probable that great results will flow from the road as a link in a grand chain of railways, I propose to give some facts connected with the enterprise, as it is one in which Cincinnati is vitally interested:

THE CHARTER.

On May 24, 1866, the Legislature of Tennessee incorporated the company to construct a railroad "from some suitable point on the South-western Railroad, at or near Sparta, Tennessee, or at a point to be selected by said company, to pursue the most direct and practicable route to the terminus of the Jasper Branch Railroad at Jasper, Tennessee." The charter vests the company "with all the rights, powers, privileges and franchises of the Nashville and Chattanooga Railroad Company," and gives to the company \$10,000 per mile State aid.

CONNECTIONS.

The South-western Railroad Company is chartered, to construct a road from Danville, Kentucky, to McMinnville, Tennessee. McMinnville is the terminus of a branch of the Nashville and Chattanooga Railroad, intercepting at Tullahoma, seventy-two miles from Nashville. From Danville to Sparta, the South-western road pursues a Southern direction; from Sparta it deflects westward to McMinnville, and the McMinnville branch points back towards Nashville bringing the line up, at the Nashville and Chattanooga junction, something in a fish-hook shape, Tullahoma at the point of the hook. The Cincinnati, South-western and Chattanooga Company propose to keep straight on to Jasper, which is on an air-line from Cincinnati, through Danville, as a reference to the map will show. Jasper is connected with the Nashville and Chattanooga road, at Bridgeport, Alabama, by a branch road twelve miles long, and from Jasper to Stevenson, Alabama—the junction of the Memphis and Charleston road with the Nashville and Chattanooga road—the distance is twenty-two miles. From here to Wabatchie—the junction of the Wills Valley road with the Nashville and Chattanooga road—is thirty-three miles, and to Chattanooga forty miles. Now, ninety miles of railroad, and probably less, will furnish the important link between this place and the South-western road, and the question submitted to capital and enterprise is shall it be built?

COMPANY ORGANIZATION.

The Cincinnati South-western and Chattanooga Railroad Company was vitalized on the 24th inst. at this place and has become a living reality. The commissioners named in the charter met in pursuance of the powers, elected A. A. Hyde, Esq., president, William J. Kelley, engineer and Huger Francis, Esq., general agent, as well as other general officers and agents. The officers are gentlemen of

capability, energy and perseverance, and are backed by an efficient board. The officers and board are fully satisfied that a practicable route can be obtained by their road to this place, and thence by the road as it is to Chattanooga, at least fifty miles shorter than that selected by the Cincinnati and Chattanooga Railroad Company, about which so many words were expended last summer. The first object of the board is to demonstrate the superiority of their route by an immediate survey beyond Pikeville, to which point an accurate survey has already been made.

THE ROUTE TO PIKEVILLE.

Before the organization of the board, the citizens of Sequatchee valley raised a fund, and procured the services of William J. Kelley, an able and practical engineer, to survey the route to Pikeville. Pikeville, on an air-line drawn from Jasper to Monticello, Kentucky, (a point on the South-western road,) is forty-eight miles, by wagon road, a little east of north from Jasper. The air-line distance between Jasper and Pikeville is forty-two and a half miles, and the railroad line is forty-five miles by survey; maximum grade fifty feet to the mile. To show that there are few countries over which a railroad could be more cheaply constructed than in Sequatchee valley, the following figures, for forty-five miles of road, will be sufficient evidence to railroad men, especially when assured that the amounts are based upon the highest figures which have been paid for like work by other railroad companies in this country:

Grading, \$57,980; masonry, \$3 500; bridging, \$17,120; clearing and grubbing, \$2,820; cross-ties \$35,640; engineering and incidental, \$23,412; making a total of \$140,472 or \$3,121 60 per mile.

THE ROUTE BEYOND PIKEVILLE.

While the mountain near this place is elevated 1,200 feet, at Pikeville it is only about 600 feet high, and much less rugged and precipitous. The best information is that the Mountain barrier between Pikeville and Sparta can be surmounted without any difficulty, and at an easy grade. As the question of practicability is to be tested by actual survey, I leave the subject for future comment.

SEQUATCHEE VALLEY.

Sequatchee is an Indian term, and signifies (if my authority is reliable; and reliable or not, no body knows the difference,) "very much possum," owing, it is said, to the numbers of these animals that formerly fed and fattened on its wild fruits. This valley, the result of one of Nature's freaks, deserves, at least, a brief description. It is about seventy miles long by four wide, in the average, and in its general course is straight as an arrow. On the west, Cumberland Mountain, and on the east, Walden's Ridge, rise almost precipitously from the valley, and wall it in the entire distance, the mountain barriers diminishing in height and ruggedness after the first twenty miles from the mouth; these opposite walls are of the same height and formation, presenting corresponding strata, but the dip on the opposite side is divergent—that of the Cumberland is slightly west, while the dip of the Ridge strata is east, showing that the valley is the result of a fissure, occasioned by an upheaval of the central line. The margins of the valley are undulating, notched and jagged, by caves, gorges and promontories, more particularly upon the western, presenting some wild and beautiful views.

THE RESOURCES OF THE VALLEY.

The soil of Sequatchee, for the greater part, is very fertile, and in proportion to the area few regions are capable of greater agricultural results. An undeveloped wealth of minerals lie buried in its mountain walls, where they are doomed to remain until means of transportation are provided. Among these minerals are coal, iron and gypsum, of superior quality, distributed from one end of the valley to the other, in exhaustless quantities. The contiguity of a rich agricultural region, with unbounded mineral resources, is seldom seen, and will be calculated to stimulate the plow and the forge when access to market is opened. With direct railroad communication with Cincinnati, we will have a market for every thing; and one, too, that can not well be overstocked in supplies, nor its value overestimated. With a road to Cincinnati, via Pikeville and Monticello, we will be but about thirty-five hours from your city, as the distance—owing to the almost air-line straightness of the route—is only two hundred and ninety-five miles.

The people here are manifesting a determination about this matter that nothing but a railroad or a financial smash-up will check. Many are ready and willing to give half of their real estate to build the road, and, so far as right of way is concerned, there will hardly be a man from here to Pikeville who will not cheerfully give it "without money and without price." If our friends "at the other end of the avenue" will manifest a like spirit in the undertaking, it will not be long before Cincinnati will have direct communication, by rail, with the great central Southern railway system, and we will have, what we are poor for the need of, a market.

As it is now, our roundabout railroad communication with Cincinnati is of comparatively little advantage; but once give us a direct route to that city, and it will open a mine of wealth for all concerned.

I intend to write more upon this subject, from time to time, as I am sure the people of Cincinnati and Southern Ohio will be interested in a project which, if carried out, as it undoubtedly will be, will redound so much to their advantage.

R.

Concerning preference shareholders and their legal rights the *Stockholder* says:

"At times when the prosperity and prospects of corporations are so much in doubt that further sales of their shares are not readily made, and the money is borrowed only at a discount of large margins, it has been the custom to issue preferred stock, which is in general terms a pledge of the revenues of the company to be the takers of such preference shares. A question was pending in the Massachusetts Courts for some years, and is we believe, still pending, as to whether the liability for dividends on such preferred shares could be limited to the net earnings of any year, or whether it did not attach to the net earnings of the year in gross. In the case referred to, though no decision had been arrived at, we believe, it is conceded that if it could be proved that profits were earned in any year, or series of years, the preference shareholders would be entitled to a compulsory division of such profits, made by the Courts, whether dividends may have been declared by the Directors or not."

A New Route to the Pacific.

A new route from the Atlantic to the Pacific is described by a Canadian correspondent of the *London Engineering*. He would have ocean steamers land at Quebec and transfer their passengers and cargoes to lake steamers. These would go a distance of 1,100 miles to Thunder Bay, on Lake Superior. Thence a railroad is to be built to Fort Garry, near the head of Lake Winnipeg, 430 miles. From Fort Garry to Acton House, near the foot of the Rocky mountains, a distance of 1,000 miles, continuous steam navigation, he asserts, may be had through Lake Winnipeg and the Saskatchewan river. The distance, he thinks, may be shortened by passing through the Assiniboine river and the valley of the Q'Appelle to the elbow of the south branch of the Saskatchewan. From Acton House he would build a second railroad to the Straits of Fuca, near the mouth of the Fraser river crossing the Rocky Mountains by the Yellow Head pass, which is the lowest known, and could be gained by very easy grades. This railway would be 420 miles in length. The whole distance from Quebec to the Pacific would be 2,850 miles; while the distance from New York to San Francisco, by way of the Pacific Railroad, is 3,500 miles. The cost of transporting freight from Liverpool to Canton by the Hyperborean route he estimates at \$78.25 per ton, against \$157.25 by the New York route, while the time would be only one day longer.

There are several little matters, however, which our Canadian friend forgets to consider. Navigation from Quebec to Thunder Bay would be closed from November to April, and on the narrow river route from Lake Winnipeg westward the ice might break up by the first of June and form early in October. The advantage of the route *via* Quebec to Lake Superior would be just the same as now, when forty-nine fiftieths of the European supplies come through New York. Throughout, the writer ignores the possibility of there being any trade elsewhere than in England and Canton, as, indeed, on a route running through an uninhabited and uninhabitable country there could be only a through traffic. The route through the United States will serve all America, as well as Europe. Moreover he takes it for granted that freight must necessarily go all the way by rail from New York, whereas for years the heaviest trade of the country has been by the Erie canal and the great lakes to Chicago, which is almost as near the Pacific as Thunder Bay. If a combination of steamboat navigation with railroads was required, it could be most easily effected, and that in a climate where boats can run after September, by building a short road over the mountains from the upper Missouri in Montana, to the Columbia river in Washington Territory or Oregon. What is needed is a route which will be open all the year round, and which will serve to supply a population along its line, as well as to transfer cargoes from Pacific to Atlantic steamers, and such a route we have in the Union Pacific Railroad now making its way so rapidly across the continent. *W. R. R. Gazette.*

The Rock Island, Michigan Southern and Lake Shore Railroads have consolidated for a through line from Leavenworth to New York, and will immediately begin the construction of the road from Des Moines to the former place, contributing \$12,000 per mile for that purpose.

Railway Geometry.


A well known and able advocate of railway reform has applied to the mutual relations of the line and train the apt term of "railway geometry," and he has dwelt strongly upon the ungeometrical and unmechanical practice of driving long rectangular wheel bases through curves of moderate radii. It appears to be widely believed that curves must of necessity oppose a resistance to motion, but, so far from this being the case, a moving body requires no more power to keep it in a curved than in a straight path, except such as may be absorbed in consequence of the imperfections of the restraining mechanism employed. What these imperfections may be can be inferred from the results of some experiments made by Mr. Lloyd on the Valparaiso and Santiago Railway, a line of 5 ft. 6 in. gauge. He found that a goods wagon, with its wheels 7 ft. between centres, required twice as much power to draw it at a slow speed, through a level curve of 1,000 ft., or about 15 chains radius, as was consumed on a straight line. This great increase of resistance upon curves was, no doubt, due in some measure, to the fact that the superelevation of the outer rail had been adjusted to a much higher speed than that at which the experiments were made, and the wagon consequently gravitated against the inner rail, causing additional friction by the binding or rubbing of the flanges there. On a curve of 600 ft. radius, on which the resistance was found to be 15 lb. per ton more than a straight level line, the superelevation due to a speed of even 25 miles an hour would be $4\frac{1}{2}$ in., giving a transverse inclination across the line, of nearly 1 in 14.

It is remarkable that the advantages of the pivoting bogie are not more distinctly recognized by our engineers. It affords a tolerably near approximation to the radiation of the axles to curves. It subdivides the weights carried, as compared with ordinary wheels, of half the number, as now used; and it greatly subdivides the shocks and jolts which wheels, as usually arranged, inflict upon the vehicle. The objections to six wheeled vehicles are well known, and thus restricted as we are upon the present plan of four wheels, the weight per wheel has risen to 4 tons, the loaded four-wheeled coal trucks on several lines now weighing 16 tons. Eighteen tons might be better carried on eight wheels, with an average of but $2\frac{1}{4}$ tons per wheel, with which it would be found that the permanent way would be less worn and strained than at present. As for steadiness, the double bogie carriages are the easiest of all—a fact which no one who has journeyed upon the American lines will think of disputing. Apart from the yielding of the springs a given irregularity in the line does not, in raising the wheel passing over it, directly raise the carriage body at that point. The blow is first divided between the two wheels of one side of the bogie, and then again subdivided over a long total wheel base, or the extreme span of both bogies, often upwards of 40 ft. The individual wheel base of each bogie has been made as short as 3 ft., and it is but seldom more than six feet, even on lines with 15 chain curves. This secures a very near approach to true radiation, the angle of the obliquity of the wheel from the tangent to the curve, being less than 10 minutes. That the resistance to draught, of the bogie vehicle is less than that of our usual rolling stock, we are in a position to prove beyond all doubt, and from an exam-

ple, too, derived from the comparatively wide gauge of 6 ft. In 1855 the writer had occasion to take an experimental train a total distance of 660 miles, over varying gradients and through curves of radii of 11 chains and upwards. The results of this experiment showed that the resistance of a train which, on some portions of the line, was half a mile long, were not greater, on a level, than 6 lb. at most per ton. An abstract of the results will be published in an early number.

The whole question of bogie rolling stock is one demanding the best attention of engineers, who will find, in exactly the proportion in which they examine it, that it offers great advantages, viz., approximate radiation on curves, subdivision of weight to a minimum of from $2\frac{1}{2}$ to 3 tons per wheel, greater steadiness of the rolling stock, and lessened resistance to traction. The bogie has been already applied to a number of engines working on lines in England and Scotland, and we think there can be no question whatever that the engineers who have thus far used it would not, on any account, now do without it.—*Engineering.*

STEEL RAILS FOR RAILROADS.—It is generally believed that at no distant day the use of iron rails in the construction of railroads will be abandoned, and steel ones adopted as a substitute. Their superiority over iron rails in durability will be readily admitted, while the additional security to life and property which they afford, commends their general use to the consideration of our Railroad Managers. The intense severity of the past winter demonstrated most clearly that iron, even of the best manufacture, cannot withstand exposure to the elements, while the test given steel proves that it can. The original cost of iron, it is well known, is not so great as steel; but when used for railroad purposes, is, in the end, far more expensive, when it is remembered that a rail of steel, costing but little more than double that of iron, will last more than ten times as long as an iron rail. We have been led to these remarks on hearing that the Erie Railway Company had contracted for immediate use, the enormous quantity of 8,000 tons of steel rails, a portion of which have arrived, the remainder to be delivered during this summer. It is proposed by the Company to re-lay at once such portions of its line as are subjected to the greatest service, but ultimately to dispense with iron rails altogether. The work of substituting steel rails has already been vigorously commenced, and the indications are that by the return of winter the work will be completed, and the whole line placed in the most thorough condition, insuring safety, dispatch, and the utmost regularity in the running of trains. Indeed, at this time, the Erie Railway is, and has ever been in as good condition as the average of roads in the country; but when the work now in progress is finished, but few lines of railway will compare with it—none excel it. We are glad to record the spirit of improvement manifested by this company, benefitting as it does alike the community and the managers and owners of this great property.

 The Central Pacific Railroad is now built to Humboldt river, 250 miles east of Sacramento. The earnings for July were \$260,000 in gold, the road being operated from 154 to 190 miles during the period.

An Asiatic Rival of the Pacific Railway.

The prospect of the early completion of the Union Pacific Railroad has caused intelligent Englishmen to reflect on the probable effect of the new route on their Chinese trade—a commerce of immense extent, and of great value to their nation. The efforts which have been made to improve English connection with India have also shortened the route to China. The railroad in Egypt has had nearly the same effect with regard to London and China and India, as has the Panama Railroad with reference to New York and the Pacific coast. In each case by breaking bulk and short railroad transportation the circuit of a continent is saved. The Suez canal will effect a still further saving, and when it is completed the facilities for cheap transportation from Bombay can hardly be improved.

But from Calcutta, and still more, from China, the route remains circuitous, and from the latter country dangerous. Vessels from Shanghai or Canton must make first the deflection around the Malay peninsula, through the most dangerous seas. Then remains the great peninsula of Hindoostan, like a smaller Africa, between them and their port of transfer on the Red Sea. Already travelers make the trip from Hong Kong to London via San Francisco and New York, in less time than by the old route via India. Though heavy freights may not take the quickest route, yet for the many precious goods of the East whose weight is trifling in comparison to their value, the quickest route will almost certainly be the cheapest route.

In order to keep English traffic within English territory it is now proposed to construct a railroad from the navigable waters of the Dihong, the largest branch of the Brahmaputra, to the valley of the Yang-tse-kiang, the largest river of China. This road would be eight or nine hundred miles long and would shorten the distance to London about one-third. While an all-rail route would be much more rapid, it would also be much more costly, and this road would make the connection with China and England so direct that English travel would probably prefer that route and avoid the voyages over the two great oceans.

But this Indo-Chinese Railroad is as yet only a project. Not even is the route surveyed, and it is uncertain whether permission could be obtained of the Chinese Government to build the road within its territory. While the importance of British commerce, the energy of British merchants and the jealousy of the British nation make it almost certain that such a road will eventually be built, still the Pacific Railroad will have a great advantage in its early completion; and for years we may expect the wealthy Chinese merchants of England, will make their journeys by the way of San Francisco, Chicago and New York.—*W. R. R. Gazette.*

BRIDGES, TUNNELS.—One of the finest of railway bridges in Great Britain has just been thrown across the Mersey river, at Runcom. It is a girder bridge 1,000 feet long, and is supported on stone piers rising seventy-five feet above high water mark. The span of each division is 327 feet, and there are ninety-seven arches, each of sixty feet span. By the completion of this road the distance between London and Liverpool is shortened by fifteen miles. The cost of the structure is about \$1,250,000.

THE CINCINNATI, RICHMOND AND FORT WAYNE RAILROAD.—This important road, on which, for some years, work has been suspended, seems now in a fair way to be built and put in running order. The Pittsburg, Ft. Wayne & Chicago and C., H. & D. Railroads made a proposition to guarantee the interest on a million dollars of their bonds, to enable the Company to purchase the iron necessary to lay the track. This, with one hundred thousand dollars additional subscription, was thought sufficient to enable the directors to put the road in running order, but it was afterward ascertained that the charter of the C., H. & D. prevented them from joining in any such guarantee. It is now understood that the P., Ft. W. & C. road will, under a special contract with the C., H. & D. road, become sole guarantors of the bonds. Should this plan fail, it is understood that another party stands ready with a proposition equally favorable to the completion of the road.

We wish the enterprise early success. It is one of great importance to our city, and one, we fear, which has not been sufficiently considered by our citizens. With the connection that would be made at Ft. Wayne, it would be a more favorable route to Chicago than any we now possess. The trade of the rapidly growing and extensive country between Richmond and Fort Wayne would be brought directly to our doors. Besides, it is the intention to extend the road from Fort Wayne to Lansing, Michigan, and thence through the great Northern lumber regions. We hope that the enterprising managers of the C., H. & D. and Fort Wayne Roads will urge the matter forward, and that we may soon chronicle the renewal of work on this important line of communication with the North and North-west—*Chronicle, Sept. 2.*

NEW CEMENT—LIQUID GLUE.—Few things are in more constant demand among mechanics than cements, and it must be admitted that most of those in common use are open to improvement. We give some receipts found in the French and German journals, for the information of our readers. The first is an iron cement, which looks likely to be useful. It is made by mixing from four to five parts of dry clay, two parts of iron filings, one part oxide of manganese, half a part of salt, and half a part of borax. When the cement is wanted for use, this mixture is made with water into a paste, which is applied immediately to the pieces to be joined. It is then allowed to dry gradually, and subsequently heated to whiteness. After this the cement will resist water and of course heat. Another, said by Stinde to be a very useful cement, is made by mixing equal parts of oxide of manganese and oxid of zinc, by making them into a thinish paste with the solution of silicate of soda of commerce. This paste must be applied quickly, as no doubt it sets very rapidly. It is not calculated to resist heat and water—the latter, at all events, not for any length of time. Another receipt we find is for a strong liquid glue. To make this the inventor puts three parts of glue with eight parts of cold water, and lets them stand for several hours to soften the glue. He then adds half a part of muriatic acid and three quarters of a part of the sulphate of zinc, and heats the mixture to one hundred and eighty-five degrees Fahrenheit for ten or twelve hours. The mixture remains liquid after cooling, and is said to be very useful for sticking wood, crockery and glass together.

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

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HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

**Bulletin Boards,
STRETCHERS,**

Illuminated and Plain Show Cards

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Bills Lading,

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AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as an establishment in the country.

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MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

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DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

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PUBLIC OFFICES, Etc., Etc.

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WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

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W. M. RICH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati.
J. H. WELLS, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
Aug. 2, 1886.]

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It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

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A locomotive can raise water, with its own steam, to fill
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chinery, and men to attend them.

IT IS AN EFFICIENT

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AND BY FAR,

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WITHOUT CHANGE OF
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PASSENGERS leaving CINCINNATI by the A. & G. W.
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Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.00am.....	7.00pm
" Dayton.....	8.20 ".....	9.15 "
Arrive West Salem.....	1.40pm.....	4.03am
" Leavittsburg.....	3.40 ".....	7.30 "
" Meadville.....	7.05 ".....	10.15 "
" Susquehanna.....	7.30am.....	10.38pm
" Paterson.....	2.33pm.....	6.17am
" New York.....	3.15 ".....	7.00 "
" Boston.....	6.00am.....	5.00pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

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Passengers to the Eastern Cities will find the

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The Engines, Cars, and other Equipments, are entirely
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Provided for all Night Trains, and Smoking Cars for all
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Ample time is allowed, at all hours,
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No effort will be spared by the Company to render a trip
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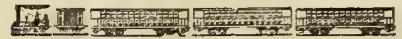
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
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W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change o
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front he East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.
State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. E.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. Thi
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia and Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton
at 1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

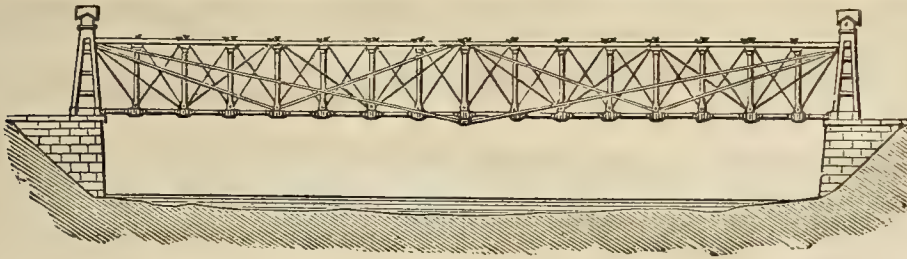
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



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THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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Pittsburg, Pa.

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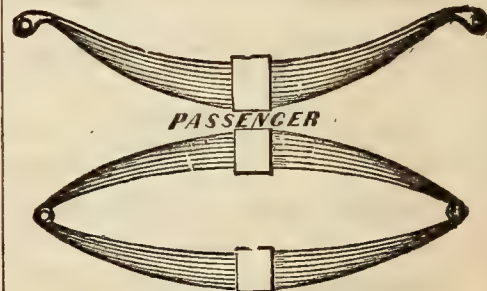
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Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

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BUSH & LOBDELL,

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Railroad Machine Works,

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MANUFACTURE

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ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

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BALTIMORE,

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NEW YORK, and

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HAVE THE PRIVILEGE OF GOING TO

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Fare to Washington City same as to Baltimore.

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O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.**Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago**INDIANAPOLIS,**
CINCINNATI-AND-
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.00 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
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AND

CORRUGATED IRON ROOFS

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CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

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Boston, Mass.

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FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9.

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LOCOMOTIVE WORKS,**

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Continue to receive orders and to furnish with promptness the best and latest improved

**COAL OR WOOD BURNING
LOCOMOTIVE ENGINES**

AND OTHER

Railroad Machinery, Tires, etc.

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JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

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ESTABLISHED 1821.

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Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., &c.
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
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BY G. MORRIS.

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TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express).

SUNDAY TRAINS.—Leave Philadelphia for Baltimore and Washington at 4.15 A. M. and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, SEPTEMBER 10, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connorsville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connorsville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Cincinnati, Mackinaw and Southern Railroad Line.

Having, in former numbers, given a view of the advantages of the Cincinnati & Mackinaw road, and its continuance to Pensacola, we think it will be interesting to consider it as done, and observe its relation to a great railroad system. In our last article, we noticed the great advantages of the Ohio Valley and of Cincinnati, in particular, for manufacturing. Great as this advantage is, it depends on the means of connecting each part of the mining and producing districts with each other at a central point. A central point, we say, because the aggregate mass of material which are produced in both the South and the North will be cheaper, and easier handled, at a central point, than at any point in the extreme South or North. This must be obvious. What are these materials? Lumber, coal, iron, copper, wool and cotton. Now, coal and iron are abundant in the central region—Ohio and Kentucky. Lumber and wool must mainly come from the north side of the Ohio. Cotton must come from the South. We see, at once, that if we are to found manufactories of all kinds of these materials, some point on the Ohio river must, in the nature of things, be the best point in the United States. Where can that point be so advantageous, as that point where a great railroad axis from the center of the lake system to the center of the Atlantic system crosses the Ohio? It is impossible to find another point so advantageous.

If Cincinnati availed herself of this advantage, to what a height of wealth and greatness she might arrive! But, it is not impossible that Louisville, or even Evansville may be that point, if there is a failure to make the great axis through Cincinnati. The greatness of cities often depends on accidental circumstances. We are merely pointing out what Cincinnati may do for herself; not what will be if she fails to cultivate her own interests.

Let us now look at the Cincinnati, Mackinaw & Pensacola line as a whole, if such a thing should ever exist:

From Mackinaw to Pensacola is, on a straight line, only *nine hundred miles*. Probably few persons would imagine it so short. Supposing that the distance to be taken, between points, which are on, or very near, that straight line, we have these results:

Mackinaw to Lansing.....	200 miles
Lansing to Amboy (state line).....	72 “
Amboy to Greenville.....	110 “
Greenville to Dayton.....	35 “
Dayton to Cincinnati.....	52 “
Cincinnati to Danville, Ky.....	110 “
Danville to Kentucky line.....	70 “
From Kentucky to Tennessee line.....	115 “
Tennessee line to Montgomery, Ala.....	145 “
Montgomery to Florida line.....	105 “
Florida line to Pensacola.....	50 “

1064

This makes the line 164 miles longer, in consequence of changing the direction at certain points; and supposing we used the present roads in Alabama, the entire line from Mackinaw to Pensacola will be 1,200 miles. But, for the present, the road gains immensely, in point of capital, by taking this course, for there is a running railroad, now operated, from Pensacola to Knoxville! From Danville (a point on the State line) to Knoxville, if, to save capital, we take that course, is but 150 miles. The construction of 150 miles of railroad only, is necessary to make a railroad line from Cincinnati to Pensacola! It is true that we should save nearly 200 miles by taking existing roads; but, on the other hand, these roads are on routes easily run, and comparatively cheap. For the time being, they may be taken as so, for a practical solution of this problem on the south side of the Ohio.

In Michigan, the large land grants of the Government, and work already done, may be taken as a sufficient basis for the completion of the road in Michigan. From Greenville to the Michigan line is 110 miles, of which the greater part is graded. If, then, we could finish that part, we take it for granted that the whole line from Mackinaw to Florida, will be completed. It is impossible, that works so imperatively necessary to Cincinnati, as the remaining 150 miles to Knoxville, and the tunnel entrance on the North, should not be completed. The only question is, whether they shall be done now, or whether they shall linger on for years? The situation of the matter, counted by states, lies thus:

In Florida.....	50 miles completed.
In Alabama.....	360 “ “
In Tennessee.....	120 “ “
	60 To be made.
In Kentucky.....	150 “ “
	90 Completed.
	37 To be made.
In Ohio.....	162 “ “
	Incl'g short line.
In Michigan.....	160 To be made.

Total.....1,189 miles.

Of which are complete.....657 miles.
“ “ incomplete.....532 “

Of the last part a great deal of work has been done; and we consider it a grand artery, into which various streams run bringing materials for the purpose of manufacturing, at the great central workshop on the Ohio:

1. We have the railroads of the South, connecting with Montgomery and Atlanta, bringing cotton, on this great artery, to the points in Tennessee, Kentucky, and Ohio, where it is needed; and bringing also, just as we can, apples and peaches—all the fruits of the Southern clime.

2. We have the branch roads of Tennessee bringing the copper of Ducktown—the zinc of Tennessee, and we doubt not tin, to the manufacturing points.

3. We have at Knoxville, also, by the South-western Virginia road, and by the road to be

made, connecting the great North-eastern line with the West—a connection with the great copper, salt and lumber regions of Western North Carolina and Virginia.

4. We have by the Kentucky roads an immense area of coal and iron on the head waters of Kentucky and Licking rivers; together with immense amounts of lumber, brought within easy distance of Cincinnati.

5. We have at Lansing a connection with the Michigan lumber regions, and by water with the immense pine deposits beyond the lakes. Here, let us say, that a direct railroad to the pine regions of the North, is absolutely necessary to Cincinnati. If we are to use pine at all, and it seems indispensable, then we must bring it from the great Northern deposits. There is no other way. Oak and poplar we can get on the south side of the Ohio, but pine we must have from the North.

6. At Mackinaw we connect with a new world. Inland oceans lie outspread around and beyond; and this side of the Arctic circle lies a region of arable land, lumber and furs, equal in extent to the United States, when we adopted the Constitution. First, we have a vast fishing ground, something of great importance to a large city. Then we have the vast deposits of copper on the shores of Lake Superior, ready to come to Cincinnati, as it now goes to Cleveland and Pittsburg. Then we have the vast numbers of people and products which, in future years, must fill up the lands north as well as south of the lakes, and which will come just as fast as the facilities of communication are opened to the great cities of the South.

This view of the great enterprise, we are considering, is brief, and falls far short of what might be said; but we mean merely to suggest, rather than detail, some of the advantages which Cincinnati might derive from well directed efforts in the line of its own interests. The truth is, that this project comprises within itself all the railroad routes which remain to be done for the prosperity of the city of Cincinnati. Why not finish them? What is in the way? We know that there is wealth enough. It only remains to be well and wisely directed to great and profitable ends. Where is the public spirit which once animated Cincinnati?

The Chesapeake & Ohio Railroad.

The financial basis of this scheme is understood to be the issue of a preferred stock, \$3,600,000 of which are already subscribed for, and \$400,000 more of which is expected to be taken and used in the construction of the work, and bonds on the entire line for \$10,000,000, for which the old Virginia Central is the principal present security.

We do not know the particulars of this financial scheme, nor the estimated cost of the work, but it would seem that such a line, with 200 miles of living road, and \$4,000,000

stock expenditure, ought to command a ready and fair price upon the contemplated loan.

The line is one of the very best possible, from the interior to tide water, and the country traversed, capable of an immense production in minerals, coal, salt, oil, and in agricultural products, as well as great power for manufacturing. Many of these are in the condition to be quickly stimulated to a large yield by the construction of this work; and by the time it is in operation to perform its office from the Ohio river to the sea, will have a large and profitable local business to transact.

We learn that the proposed Atlantic terminus of this line is Norfolk, and that, under the "prospects," it is enlivening and dreaming of future greatness, when it shall vie with New York, Philadelphia and Baltimore. Already, we understand, its enterprising citizens have taken measures to secure a tri-weekly arrival there of trans-Atlantic steamers.

We wish our Norfolk brethren all the success they deserve, and from present indications they will merit a great deal. Yet, we will not be astonished, if, from Richmond, there will be a road made down the peninsula, on that tongue of land between York river and the James, terminating at Newport News. Such a line would be strongly favored, we should think, by the city of Richmond. It would also be a very direct route to Hampton Roads. The work would be light, the grades gentle, and the country through which it passes, fertile, and now under fair culture.

The terminus of such a line, Newport News, the largest vessels could reach without a pilot; they could unload without the delays and cost of river navigation, and receive their loading from Richmond and the interior with such despatch as to enable them to make one or two trips more in a season. The harbor is capacious and secure, adequate to the navies of the world, and yet within twenty miles of the open sea.

Such a line of road, in the interest of the city of Richmond, would make a trading point at Newport News, of no mean importance, and might, indeed, become a rival of its advanced and prosperous neighbor, Norfolk.

It is a desolate, uninviting place just now; mutilated with rifle pits and fortifications, lamentable evidences of the late strife; yet, it is a high, bold point, such an one as impresses every intelligent visitor with its importance for the traffic of the South-western interior with foreign traders. It has long been considered, by thinking Southern men, as of commercial value; but it was held for two hundred years in the withering grasp of the slave interest; progressing not an inch beyond its settlement under the liens and entailments of the British crown, until the war crushed all these effete and exploded notions, and left it an attractive interest to the capital and enterprise of the nation, and the commands of a growing and immense commerce.

Spirit of the Press.

We seem to be working to a point as rapidly as possible, the result of railroad agitation now going on among our people. The interest is unabated in every movement that tends to revive the spirit of enterprise in this city. The press continues active in this department and is doing an immense work, that will force the present effort to a conclusion one way or another, and we believe for the last time.

These movements have started out some of our strong men. They are thinking, and talking, and will doubtless soon *do some acting*, when they do, things will move up a little, and we can then start from another plane.

Hitherto we have talked about a Southern line, or a Northern line; we seem to have drifted into a consideration of both these interests together, and our city as the axial point of the traffic of the extremes of the country. This is right. They are stronger together than separated, and one the natural and proximate necessity of the other. South to the Gulf, connecting with the whole system of Southern roads; North to the Straits of Mackinaw joining with the system of Northern railroads. An immense artery into which the roads of the nation will flow, and center at Cincinnati.

The *Commercial* of the 8th inst., says:

OUR SOUTHERN CONNECTION.

A good deal of activity is manifest among our railroad men, on the all-important subject of our Southern connection. So much has been said about it that very little is left to be added, and it is, therefore, with no little degree of interest that we have to note the first stir that indicates life in the enterprise. The people south of us, in Kentucky and Tennessee particularly, are anxious to see consummated the scheme which shall unite them with us, and draw all into a common commercial fellowship from the shores of the Mackinaw to Pensacola, and with this view they send here constantly agents to press the advantages which we should be first to embrace. The people who are not alive to railroads, should retire from the concerns of active life. The railroad is the spirit of the day and age we live in, and no community can prosper that does not, or that refuses to breathe responsive to its demands.

The last number of the *RAILROAD RECORD* is jubilant over the articles that have appeared in the daily papers during the past week on railroads, and raises its voice in clamor for more.

The report of the Cincinnati Chamber of Commerce of the 8th, inst., says:

Connection with the Southern States, by a direct railway hence to east Tennessee, is still the burden of railway discussions, and all agree regarding the importance and the necessity of such a road. There are now some indications that the road will be built, as it is now in the hands of men of means, who think that there is money in it, which, after all, is the great moving, working power. It seems like beating the air to use arguments to prove the importance of a railway of this

kind to this city, because all agree on this point, but individual effort can do but little in accomplishing undertakings to this kind; public works have, as a matter of necessity, to be completed by contributions levied on the public by a general law, and not by voluntary contributions. A clause in the Constitution of this State forbidding corporations giving aid to any thing of this kind, has done more to retard the progress of our city, than all other causes, and this must remain the case so long as that clause remains a part of our State Constitution.

Agents and Committees, are in the city now from Chattanooga, and Savannah looking after railroad connections with the lines spoken of.

The Cincinnati, Lansing & Mackinaw Road—1st Section.

The first section (from Cincinnati to Dayton) of the proposed Cincinnati, Lansing & Mackinaw Railroad will possess more elements of success than any road of equal length west of the Alleghenies.

1st. It will connect the cities of Dayton and Cincinnati with *fifty-two miles* of road.

2d. It will land passengers in the heart of the city.

3d. It will find the center of the city without crossing streets or alleys.

4th. It will be entirely free from the perils of bridges, as it does not cross the Miami river, nor any stream of such magnitude that they may not easily be arched with stone.

5th. Being upon the east side of the Great Miami river, it will be entirely relieved from the destructive floods that sweep over the west side.

6th. The country through which it passes is supplied with fine gravel, stone, and considerable timber. It is also in the fertile range of the famous Miami Valley, that has been settled for over half a century; is under a very high state of culture, and possessing a population of 60 to the square mile.

7th. It will touch and do the business of all the original towns along the Great Miami river, except Hamilton, because several of these points are miles away from their present railroad, and all are separated from it by the river, and subjected to the inconveniences of bridge passage and toll exactions.

8th. It will be the shortest, quickest and cheapest trunk line for all the roads converging from the South-east clear round to the South-west, into the Miami Valley, to find Cincinnati, not now having independent entrances to the city, and therefore *the passage way* for more miles of railroad than any line of equal length in the North-west.

9th. For the first twenty miles out of Cincinnati, (to Chester Hights,) it passes through a country of rare beauty, and particularly desirable for suburban residences. Thus opening a way of relief to the overcrowded city, and at the same time creating an increasing and very lucrative business to itself.

10th. The whole line can be made and equipped up to the modern standard of a complete first-class railroad for *sixty per cent.* of the

cost of either of the roads running northward out of Cincinnati.

11th. From a careful estimate of the resources that this line *will command*, against all possible competition, it is concluded its business will rise at once to the full capacity of a double track to Sharon, and single track to Dayton, and to the complete power of a double track through in five years.

Public Spirit.

We clip the following from an able article in the *Gazette* of the 8th inst, on "Cincinnati and its People." It is true, and worthy the attention of our people:

"One thing we note with rather a sad feeling—*public spirit* has declined. It is not as easy to get the city to act for its own interests, or any number of individuals to combine for the interests of the city, as it was twenty years ago. Why? It is perhaps, a natural change, produced by the growth of a great city. As a city grows, it becomes more cosmopolitan. Some people say less "*provincial*," and think it better. We are of a different opinion. We think it a step downward. A city, like a man, must have an individuality of constitution and faculties, or it can not attain real strength. Philadelphia exercises more influence on the country than New York, for New York exercises none, except through the money changers' tables. Philadelphia is American, New York is cosmopolitan. Leaving that question, why can not Cincinnati do something for the public interest, which even cosmopolitan New York has done? Take for example, the Central Park, the Croton Water Work and the Harlem High Bridge. These works cost the city of New York more than thirty millions of dollars, and for one-third of that (ten millions) Cincinnati can do all that New York has done. Why should she not do it? All these works were established by popular vote, and the people have never regretted them. On the contrary, they are monuments of public beneficence, bringing cheap pleasures—and pleasures, too, of a high order—within the reach of the poorest people. For six cents a tired working man (and for twenty-five his wife and family) can go in a nice ride to the Central Park. There he will see nature and art combined in their greatest beauty. He will hear the finest of music. He will see a museum of natural history, and revel in pleasures which the greatest wealth can seldom procure. Now, Cincinnati can have this cheaper and better. All that is wanted is a little public spirit. So of the Southern Railroad, the Water Works, the Merchants' Exchange. These would all pay for themselves, when once established. Will they ever be done? If there was a will, the capital could soon be raised; but it will not be without more public spirit than is now exhibited."

Receipts of the Western Union Railroad Company, for the week ending August 31:

	1868.	1867.	Inc.	Dec.
Freight.....	\$31,817 67	\$27,335 45	\$4,482 22	.....
Passengers	5,685 90	5,065 07	620 83	.....
Express and Tel.	350 00	320 00	30 00	.....
Mail.....	375 00	375 00	.....	.....
Totals.....	\$38,228 57	\$33,095 52	\$5,133 05	.....

Receipts from January 1, to August 31:

1868.....	\$467,417 91
1867.....	394,014 52
Increase.....	\$ 73,373 39

Behind the Times.

Virginians are trying to interest Western cities, and especially those on the Ohio and Mississippi rivers, in a project for a canal connecting the Kanawha and James rivers, and thus giving an outlet to all the streams of the Mississippi valley at Norfolk. The length of the canal necessary would be 485 miles, about one-half of which (from Richmond to Covington, on the James river,) has been in operation many years. The part to be built, however, must cross the whole Apalachian range of mountains.

This is an impracticable scheme, and likely to result only in the expenditure of large sum of money, engineering, and perhaps the commencement of the work.

Long before such an undertaking could be completed, the public mind would move up with the times and condemn the whole thing.

What is wanted in Virginia is railroads, judiciously located, so as to constitute a system that shall connect with the great lines of the South-west and North-west, and leading to the shipping ports on the seaboard. Such lines would develop her vast resources, make her a manufacturing and commercial State as well as agricultural, and bring her up among the first States of the Union.

Virginia has been very liberal in her contributions towards public improvements, let her continue in well doing, and discriminate wisely between things of the past, and those of to day, and of the future.

Cincinnati Chamber of Commerce.—Annual Meeting and Election.

The annual meeting of the chamber of commerce, for receiving reports and electing officers for 1868-9, was held at noon on the 8th. The annual exhibit of the trade and commerce of the city for the year, by the superintendent, the financial statement, and the report of the board of officers were presented.

From the financial report we take the following:

QUARTERLY STATEMENT.

Total expenditure for the last quarter	
fiscal year	\$4,601 56
Total receipts.....	2,995 02
Excess of expenditures.....	1,605 62
Balance in Treasury June 1.....	\$25,231 10

Balance in Treasury September 1.....\$23,625 46

ANNUAL STATEMENT.

Receipts.....	\$22,179 37
Expenditures	20,753 64
Excess of receipts.....	1,425 73
Balance in Treasury September 1.	
1867.....	\$22,199 73

Balance in Treasury Sep. 1, 1868 \$23,625 46

THE ELECTION.

The following were elected: President, John A. Gano; Vice Presidents, William H. Davis, Florence Marmet, A. L. Frazier, J. H. French, H. M. Johnson; Secretary, Geo. McLaughlin; Treasurer, William Shaffer.

As six Vice Presidents are required, and only five were elected, there will have to be another election for the purpose of filling the vacancy.

The sale of unsold desks took place at 10 o'clock, on the 9th.

American Commerce with Tropical Countries.

IMPORTANCE OF A DIRECT GRAND TRUNK RAILROAD BETWEEN CINCINNATI AND SAVANNAH.

In corresponding ratio with the increase of wealth and means for commanding the luxuries as well as the necessities of life, does the demand yearly increase for the productions of tropical climes. The trade between the United States and the West India Islands is now enormously great, and is principally carried on through the ports of New York, Philadelphia, Boston, Baltimore and New Orleans. But, if we read the signs of the times aright, a great revolution connected with this trade is about to take place.

The city of Savannah, the nearest, large Atlantic seaport town to the West India Islands, is fast looming up in commercial importance. It is destined, in our opinion, to be the great commercial metropolis of the South. Already, as a cotton port, it is second only to New Orleans, while, before the war, it was the fourth. That it will soon go ahead of New Orleans, and become the *first* cotton port of the United States is very plain to any impartial mind who has paid attention to the tendency of Southern commerce during the last few years.

By the superior inducements offered by Savannah, cotton now tends thitherward from nearly two thirds the cotton region from which Mobile formerly drew her supplies. And when the railroads centering at Savannah have reached Vicksburg, it is confidently believed that a large portion of the commerce of the Mississippi river will stop at that city and take rail to Savannah.

There are now eight steamers from New York, two from Philadelphia, and two from Baltimore, that are profitably engaged in the Savannah trade. And, in addition to these twelve steamers, there are six splendid Clyde-built steamers soon to commence running between Savannah and Liverpool. The commerce of the ocean is being rapidly changed from sail vessels to steamers.

The advantages of Savannah over New Orleans as an entrepot for European steamers, or steamers from the North Atlantic ports, are very great. The dangers of ocean navigation from New Orleans around the Florida coast to a point abreast of Savannah are double, or quadruple to what they are from thence onward to New York or Liverpool. And besides the additional dangers of navigation, the time lost by taking that route will be another reason for cotton and grain being sent directly from Vicksburg to Savannah, instead of taking the longer, dangerous and more circuitous route via New Orleans.

As to grain shipments, the Vicksburg and Savannah route will offer great advantages owing to the danger of grain heating while vessels or steamers are passing through the

hot tropical waters of the gulf stream, along the coast of Cuba.

But the future greatness of Savannah will not consist in being simply the largest cotton seaport of the United States. It is destined, also, to become *the principal gateway into the United States for the tropical products of the West India Islands and Brazil.* And while being the gateway for these tropical products to find their way inward to the United States, it will also become *the gateway for the great staples of the west to find their way outward to those tropical countries* which are such large consumers of our flour, pork, beef, corn, etc.

The future greatness of Savannah being thus foreshadowed, how important it becomes to Cincinnati to open up, at the earliest practical moment, a direct railway communication between the two cities. A grand trunk railway, owned and controlled by one company, would soon be fairly over-burdened with the amount of *through freight both ways* that would seek this new channel of commerce. Even without one road controlled by one company, by friendly and liberal arrangements with existing roads, and having provisions made for *through trains*, a magnificent freight business would soon grow up. To have immediately an almost direct railway to Savannah, only two gaps are necessary to be made, viz: between Danville and Chattanooga (via Cumberland Gap) and between Covington, Ga., through Milledgeville to some point on the Georgia Central Railroad beyond Milledgeville. This would make as direct a railway line as could be wished, and passenger trains could go through from city to city in *thirty-six hours.* Freight, also, could be carried from city to city as cheap as from Cincinnati to New York—the distance being just about the same.

Our heavy importing grocery houses would soon find this to be the natural one to use in bringing to the Queen City the sugars and coffee which are sold in such immense quantities at this great central commercial mart of the West.

This would open up, too, another route for freight, to and from Europe, as cheap as any of the existing routes. At the present time, in the winter season, the existing railway routes are taxed to their utmost capacity, and a new outlet to the ocean is imperatively needed. Savannah is, besides, a natural distributing point for an almost fabulous amount of Western products. All Florida, a great part of Georgia, and a considerable portion of South Carolina draw their supplies of bacon, flour, beef, etc., directly from Savannah. These articles are now carried first by rail road from the West to Eastern cities; and there transhipped by steamers to Savannah; where as, they could be taken by railroad from Cincinnati to Savannah, as cheap as from Cincinnati to New York.

By this hasty sketch we think we have shown that if the merchants of Cincinnati

will but turn their eyes southward to Savannah (the Chicago of the South) they will see a trade that can be had for the asking, so great and enormous in extent as will give an impetus to the growth and importance of the Queen City beyond what the most sanguine has ever dreamed of.

By means of various lines of steamers, that will soon be started between Savannah and various West India ports, and by means of a railroad direct from our city to Savannah, our merchant princes might inaugurate a direct trade with the West India Islands. It would only require branch houses in Savannah to facilitate transshipments either way. What Savannah needs in order to become at an early day the gateway, through which the profitable trade with the West India Islands shall be bid to flow, is *capital.* That capital she cannot draw from New York or the East, because self-interest forbids. But the East is no longer the exclusive home for capital. For a few years past a rapid accumulation of capital has been centering here, and at other great commercial centers of the West. Let the capital that is needed there to develop Southern commerce, flow southward from here. Let us inaugurate such intimate trade relations—such a commingling intercourse—Northerners visiting the South and the West India Islands every winter, and Southerners visiting the North in the summer—as to hasten on that glorious period when we shall in very truth become *ONE PEOPLE*, and when the estrangements of the past and the present shall be but a forgotten tale.

The Problem Solved.

For some time the attempt has been made to run vehicles upon the highways by steam, or some motor power other than that of animal life. The experiments have been numerous, and the failures as many, either because, the necessary machinery was complicated, or too ponderous, or was too short lived, or costly, or only worked upon level lines and light grades. Yet the desire for such a thing has kept the belief in its success alive, and the repeated failures have only stimulated repeated, and more persevering attempts, until now, it would seem, that such efforts have been crowned with success.

One R. W. Thompson, a Scotchman, recently loaded four wagons, each weighing $2\frac{3}{4}$ tons, with $5\frac{1}{2}$ tons of coal to the wagon, thus giving a total tonnage of 32 tons. To this train he attached one of his road steamers, with India rubber wheel tyres, weighing, 8 tons, and moved the whole load easily, and with good speed, (with capacity to increase it largely) from Newbattle Collieries to the city of Edinburg, a distance of eight miles, over a very rough way, with grades of 1 in 16.

This is said to be the most successful experiment yet made, and promises to be generally adopted.

From an exchange we learn that a traction engine for use upon streets and roads, was recently exhibited at Toronto, Canada, and after repeated and most thorough trials, drawing after it a load of 15 tons, it was purchased at once by Messrs Bruce & Watson, and is at work between Walkerton and Guelph, doing the extensive trade of that locality.

By experiments, these machines will be simplified and cheapened, and undoubtedly go into use much more generally than we may now be disposed to think.

We are moving along in the great race of life at a wonderful rate. But, wout we have taken a leap ahead, when the work of the field, the streets of our cities, the highways of the country, will be done by machinery, and the horse and the ox, and beasts of burden, so long the friends of man in his hard toils, will be consigned to uses not now thought of, or become creatures of ornament, enjoying the blessings of rest that the reign of mind over matter has the past half century so thoroughly inaugurated?

The Blue Ridge Railroad.

EXTRACTS FROM THE MESSAGE OF GOV. SCOTT.

Gentlemen of the Senate and House of Representatives:—In my Inaugural Message I expressed the intention of submitting to your honorable body a plan for the early completion of the Blue Ridge Railroad. In accordance therewith, I now invite your earnest consideration of the subject, and invoke such action by you as shall speedily achieve this great result.

For more than forty years the importance of uniting the West with the South Atlantic coast has been urged by the leading intellects of the country; and many of the railroads constructed during that period, on both sides of the mountains, have been built with a view to their direct or tributary connection with this great national highway. Roads from Branchville to Columbia, from Columbia to Greenville, Abbeville and Anderson, from Columbia to Spartanburg, from Columbia to Charlotte, and from Charlotte to Statesville, Morganton and Asheville, and the several roads extending from Cincinnati and Louisville towards Knoxville, and from Knoxville towards the Blue Ridge, are all but the off shoots of this great enterprise. Even as early as 1836, when delegates from nine States assembled in a railroad convention at Knoxville, it was declared to be the most magnificent and important public work projected in our country.

After mature deliberation, and a critical survey by the most distinguished engineers, it was decided to locate the route between Anderson, S. C., and Knoxville, Tenn., the distance being only 195 miles. The total cost of the undertaking, it was estimated by Col. Gwin, the chief engineer in 1860, would not exceed \$7,575,677. The work was commenced under the most favorable auspices, and energetically pressed forward until 1860, when operations were suspended by the war. At this time thirty-four miles of the road had been completed and was in running order.

Much of the grading and masonry in the remaining territory of South Carolina, Georgia and North Carolina was also finished, so that the work may now be said to be more than half completed. In this connection it is proper to state that the grading in South Carolina alone is nearly equal to the whole grading in North Carolina and Tennessee; the bridge and arch masonry in South Carolina is nearly equal to all the bridge and arch masonry of the remainder of the road; while the tunnels in South Carolina exceed nearly all the tunneling on the rest of the line.

The sum expended upon this gigantic work is \$3,287,258—about half the estimated cost of the whole road; and there has been incurred a debt of only \$230,000, besides interest, which is secured by an issue of first mortgage bonds. The State has subscribed and paid in State bonds \$1,310,000. The City of Charleston has subscribed and paid in City Scrip \$1,049,000; so that the State and city are interested in the fortunes of the road to the amount of about \$3,000,000. This estimate includes unpaid interest which has accrued upon the bonds. The railroad company likewise own seventy thousand acres of land, and have the promise from citizens living along the route, of three hundred thousand more as soon as the work is resumed. This land will, on its completion, become very valuable. Is it wise financial policy for the State, by withholding the further aid required, to hazard a sale of the assets of the road by the trustees under the first mortgage bonds, and permit some rival enterprise to enjoy the benefit so nearly within our reach?

The advantages of the Blue Ridge Road over any other that has been projected are manifest.

1st. It is the shortest line through the mountains from the seaboard to the Ohio River. It must therefore always command both trade and travel. The great West exports corn, wheat, flour, bacon, lard, tobacco, whiskey, lime, salt, mules and cattle. These find an outlet through New York and Baltimore on the one side, and Mobile and New Orleans on the other. At the present time bacon may be found in Anderson which was shipped from Cincinnati to Wheeling, thence to Baltimore, thence to Charleston, and thence to the interior—a distance of more than fifteen hundred miles. Were the Blue Ridge Railroad completed, the distance from Anderson to Knoxville would be only one hundred and ninety-five miles, and from Knoxville to Cincinnati less than three hundred miles, making a total of four hundred and ninety-five miles, and saving in travel and expense one thousand miles. To illustrate this item of expense, corn, which in Columbia before the war cost one dollar a bushel, could be bought just across the mountains in Tennessee for twenty cents.

2d. During the winter months, Northern roads are frequently obstructed by snow, and business is seriously interrupted. At no time is such a casualty likely to occur in the softer climate of these Southern States. Our ports will always be an outlet through which the West can supply the markets of the world and receive in return not only the wealth of distant peoples, but the rice and cotton of our own fertile fields. Terminating as the road will, upon our coast at Charleston and Port Royal, it has a further material advantage over those lines which terminate upon the Gulf of Mexico. Here the freighted ship may proceed direct to sea. There she must round the capes of Florida, and encounter

the increased difficulties and dangers of navigation, consuming time, and swelling the cost of transportation and insurance.

3d. The Blue Ridge Railroad passes through a country rich in resources of every kind. The soil is of unequalled fertility, and adapted to nearly all profitable species of agriculture. Gold, silver, iron, coal and copper mines abound, and only wait to be tapped by the hand of industry to add their vast stores to the wealth of the nation. Employment may thus be furnished to thousands of sturdy laborers from every portion of Christendom; emigration will be encouraged; hitherto unsettled country will be opened to enterprise; our water courses will be peopled; manufactories will rear their pleasant shapes; villages will expand into towns and towns into cities: business will thrive and its pursuits become more diversified, and, in short, the State will feel the pulses of a new life throbbing through this great artery of trade.

4th. The Blue Ridge Railroad will be the feeder of every other railroad in South Carolina, and a large and remunerative local business must supercede the present stagnation. Charleston and Columbia, as commercial centers of the State, are not only to be benefited, but Port Royal with its best harbor on the Atlantic coast between Pensacola and the Chesapeake, must become a railroad center from which imports will be distributed to the North, West and South, a harbor wherein ships will likewise be gathered from every quarter of the world, to receive at that terminus of this great highway the freight which the West and South would exchange for the products of the old world, and the East and West Indies. It is well known to commercial men that during the winter season, the price of transportation to points north of Cape Hatteras is nearly double that paid on shipments to Southern ports.

5th. The building of the Blue Ridge Railroad is of vast military and political importance to the Union. Aside from the sympathy naturally existing between agricultural sections like the West and South, and strengthened as it must be by all the ties of trade, the necessity of a great air line across the Continent in this direction, with Charleston and Port Royal for its objective points, is too great to be ignored by the General Government, and I feel confident that Congress will give its earnest consideration to an enterprise which may add so much to the military and postal facilities of the country. Such a western connection across the mountains has always been regarded as a political and military necessity scarcely less important than the commercial wealth and prosperity that would result from the construction of the road.

This was the view taken even during the administration of Mr. Monroe, when his Secretary of War had a survey made through the identical gap in the mountains through which the Blue Ridge Railroad will pass, with the intention of cutting a canal between the head waters of the Savannah and Tennessee rivers, before the day of railroads.

1st. It is essential that the Legislature shall remove the restriction imposed upon the company by the act of 1854 which required the production of proof to the Governor of such subscriptions of aid granted in the States of North Carolina and Tennessee, as to give reasonable assurance of the completion of the road. These promises of aid were based upon a contract by contractors, but as the later

failed to comply with the terms of the contract, South Carolina withheld her guarantee of any of the bonds of the company.

2d. With the removal of this restriction, the State should pass an act guaranteeing the bonds of the company to the amount of one million of dollars, and authorizing the President to hypothecate or dispose of said bonds in such a manner as is best calculated to secure the immediate resumption of the work.

The engineer, Colonel Gwin, states that the entire tunnelling can be completed in one year. Three-fourths of this work has already been finished, and there is no reason why the remainder may not be completed within the time above specified. The rolling stock can then be put upon the road. In less than one year and a half from this time, therefore, we may have the satisfaction of seeing a through train from the Ohio River to Charleston, and a union between two sections of our country, which practically have been to each other as strangers.

This subject is one of the gravest with which we have to deal, because it largely involves the material interests of the State, and promises to contribute more to their future development than any other public enterprise that can be suggested.

I submit these considerations to your honorable body, in that spirit of earnestness which I trust will find a response in your early action.

Accompanying this message is a memorial addressed to the Executive of the State, by the President of the Blue Ridge Railroad, and a report on the condition and prospects of the company prepared by the same officer, to both of which I respectfully ask your attention.

Very respectfully,

ROBERT K. SCOTT,
Governor of South Carolina.

The following statement shows the gross earnings per mile of fourteen leading roads during the first seven months of the two past years:

Railroads.	Miles		Difference	
	1867.	1868.	Inc.	Dec.
Atlantic & G. W.	\$5,642	\$5,485	\$	\$577
Chicago & Alton.	6,971	7,886	915	
Chicago & N. W.	4,734	6,019	1,285	
Chicago, R. I. & P.	4,531	49.6	365	
Cl. vel. & Pittsb.	5,664	6,162	419	
Illinois Central.	5,011	4,945		66
Marietta & Cincinnati.	2,488	2,712	224	
Michigan Central.	7,922	7,922	51	
Michigan South. & N. I.	4,507	4,984	477	
Milwaukee & St. Paul.	2,861	3,549	688	
Ohio & Mississippi.	5,246	4,637		509
Pittsb. Ft. W. & C.	8,371	9,271	900	
Toledo, W. & W.	3,778	3,719		59
Western Union.	1,764	2,127	343	

This gives the average earnings of these roads per mile as \$4,891 in 1867, and \$5,311 in 1868, showing an average increase of \$420 per mile, or nearly nine per cent.

CHEAP FREIGHTS.—A writer in the *American Railroad Journal* estimates that by a combination of economies, rail freights may be so cheapened as to make six tons pass where one ton is now carried. The National Cheap Freight Railway League asserts that by the establishment of the coal thoroughfare as proposed by a bill now pending in the Senate of the United States, and opening it to free competition for the owners of coal lands, miners, and all others desiring to carry coal to market, the article can be laid down on the Jersey shore, or dumped into vessels, at \$2.25 per ton.

Silk Goods Should be Made at Home.

The manufacture of silk dates back into far antiquity. The Chinese have had silk goods from time immemorial, and when first known to history had the art of producing all the elegant articles made from it in its present state of perfectness. From thence the cultivation of the mulberry, the propagation of the silk worm, and the consequent knowledge of how to spin and weave it into cloth, and dye it with the many various hues, spread over Western Asia, Southern Europe, and ultimately reached England and then the United States.

The manufacturing of silk has been carried to the highest pitch in France, and from that country we now obtain the various fine and elegant styles so pleasant to our ladies, that come into market under all sorts of sweet musical names, such as organdies, crepes seie on-dees, taffetas, gros grains, gros de Naples, moires, &c., in almost endless range of names derived from variations in the single process of "throwing" or twisting and preparing the thread for the loom after the filaments are reeled from the cocoons. But they all have a definite meaning among the manufacturers and dealers, and do not so much indicate quality and styles of goods.

Lyons is the chief seat of the organization of this industry, and has grown to great dimensions as the leading silk mart of Europe. Its population is large, its commerce respectable, and its wealth of skill and machinery enormous. Southern France grows the mulberry in profusion. Italy is its neighbor in the same line, while many parts of the surrounding and adjoining countries are laid under contribution for the raw silk, and much is also imported from abroad for the supply of the French looms. And such has been the enterprise in this manufacture, that while the Emperor Aurelian refused his queen a dress of silk on account of its expensiveness, now almost every lady has a wardrobe well filled with silk dresses, and many of them very costly.

This manufacture has not escaped the plague of ingenious fraud, and the consumer is put to her wits' end very often in seeking to avoid being cheated in the purchase of a dress pattern. Many patterns are rotten, others will crack in any place where the fabric is doubled, and others are sold as pure silk when mixed with cotton or other materials. Silk waste or shoddy is now worked up very skillfully. Specimens were exhibited at the great Exposition of threads from "bourre," as it is called, that rivalled the appearance of the most lustrous silks. But this stuff is generally manufactured in trimmings, and in that way brings great profit, though it sells at a low price.

The production and manufacture of silk embraces seven distinct branches:—First, the rearing of the silk worms; second, the filature or the reeling of the silk from the cocoons, third, the throwing or spinning of the silk threads; fourth, the dyeing of the silk; fifth, the preparation of the silk goods for the loom; sixth, the weaving of silk threads; seventh, the spinning of waste silk. These branches are again subdivided into various processes, and all require judgment, experience and skill.

This manufacture has also taken deep root in England. While that country does not grow a pound of cotton, she has made herself the great cotton manufactory of the world. Neither does she produce a pound of silk; and yet her silk manufactures are mighty and increasing to a promised rivalry with France and Italy. She has now one hundred and ten looms in operation, which give direct employ-

ment to two hundred thousand persons, besides those engaged in producing ribbons and silk hosiery. All this has grown up within fifty years.

In France there are many grand manufactories outside of Lyons. St. Etienne, with a population of ninety thousand, runs fifteen thousand looms, employing twenty-three thousand five hundred persons, whose united production is estimated at \$12,000,000 worth of ribbons, which mostly find a market in the United States. The Canton of Baise works 6,000 looms on ribbons mostly for our market. Paris produces from silk waste \$8,000,000 worth of shoddy, employing 8,500 workers. St. Etienne is famous for its fashionable dress trimmings; St. Cloud for its cords, and stay laces—the latter employing 2,000 frames in weaving stay laces alone.

These few statistics, from many more of the same sort that might be collated, show how large and profitable this interest has become in those countries that have given attention to it. And now we wish to suggest that it is high time for our own country to enter upon the development of this industry.

In the early settlement of Virginia the colonists turned their attention to rising the *morus mult caulis*, on which the silk worm feeds, and found that they could grow the trees and feed the worms there, producing the raw silk as well there as in Southern Europe.

The introduction of negro slavery and the demand for tobacco springing up about the same time, their attention was directed from the culture of silk to the coarser culture of tobacco, in which negro labor was found to be more profitable. Hence the suspension of the first and the expansion of the latter business.

The silk culture gradually traveled northward, and got slight footing in sundry places; even in Massachusetts some attention was paid to it thirty or forty years ago. But other interests were found more profitable, as the severe winters made it difficult to preserve the eggs of the silk worm over from one year to another, and it was entirely given up about twenty-five years ago.

Now that slavery is abolished, and the Southern States, with their mild and equable climate, are open to enterprise, another opportunity is presented of prosecuting this industry. There is a belt of country at least one hundred miles wide, from the latitude of Washington southward, in which this production might become a leading interest. This belt extends westward across the Mississippi Valley, and takes in the Ohio Valley entire. Why do not our enterprising merchants, farmers and mechanics try their hand at this? The demand for silks will increase in an unlooked-for ratio as the country settles, and the people who understand the business of breeding and feeding the worms, raising the trees, and weaving and dyeing the fabrics, can be brought in from Europe or Asia as fast as needed. The machinery used in France or England can be imported or made here, just as well as that for cotton or waxes; and the market demand for the fabrics would in a few years give employment to millions of invested capital and thousands of workers. Now is the time to begin. Illinois must have tens of thousands of acres well adapted to this branch of agriculture and manufactures. She can soon have the skilled artisans, and Chicago can become one of the great silk markets of the world. A few thousands of dollars invested in an experiment would settle the whole matter, and demonstrate the success or failure of the grand enterprise. Let it be done.—*Chicago Jour. of Com.*

Railway Items.

—The earnings of the Western roads show heavy gains, and their prospects for business were never better. On the first half of the year ending June 30th, thirteen roads show an increase of over 10 per cent. in their gross receipts, and in the next six months they will do the heaviest business ever known. With their large earnings and the great saving in operating expenses, holders feel assured of their ability to pay dividends regularly. The report of the Michigan Central Road, just published for the year ending June 1st, shows a saving in operating expenses equal to 172 per cent. on the capital stock, and they expect to do better this year. The other large roads like the Michigan Southern, Northwestern, Rock Island, and Fort Wayne, are managed with great economy, and a great reduction will be shown in their expenses also. At the same time they keep their rolling stock up to the requirements of their increase in business, and never were in better order.

—A Texan, urging the construction of a railway from St. Louis to Texas, says: "Between the Nueces and the Rio Grande Rivers there are one million head of horned cattle and one hundred thousand horses and mules. The trade of San Antonio with Mexico amounts to eight million dollars annually. It would take a railway fifty years to carry all the cattle in Western Texas to St. Louis. The cattle in that country are being killed for their hides alone." He says that such a road would not only make St. Louis the stock market of America, but would develop the finest copper, coal, and silver mines in the world.

—The right of way for the Cleveland, Wooster & Zanesville Railway has been secured as far as Wooster. Most of the property owners residing along the route not only subscribed liberally to the stock, but donated the right of way to the company in addition. It is estimated that the purchase of the right of way for the distance not donated will not exceed an outlay of ten thousand dollars. Over two hundred thousand dollars worth of stock has been subscribed between Cleveland and Wooster, and work upon the remainder of the route is progressing with equal success.

—The tunneling of the Alps goes on slowly but regularly; 8,384 metres have been tunneled, and 3,835 remain to be finished. The work accomplished last year was 1,551 metres, and about the same will be made in 1868. It is estimated that about two and a half years will be required to finish the tunnel. From May 1 to June 1, 54 metres were drilled from the Swiss side and 61 metres from the Italian side.

—The Illinois Central Railway Company employs 1,200 men in its manufacturing department, 400 at the Weldon shops, 800 at the carworks, 250 at the Centralia shops, and 250 at the Amboy shops. The monthly pay-roll

for this department is about \$80,000. The road runs about 150 locomotives, all of which burn Illinois coal, consuming 120,000 tons annually.

—The *Oregon Sentinel* in a sensible article on railroads says: "The railroad Committee of Congress of which Mr. Mallory is a member, are ready to report a bill, early at the next session, granting government aid to the amount of 13,000,000 to this branch of the Pacific road from the bend of the Humboldt to Portland, running through Rogue River and Mipqua Valleys."

—Virginia has loaned her credit for railroad enterprises within her limits to the amount of \$12,000,000; Georgia has expended upwards of 5,000,000 upon the State road alone; North Carolina has contributed to railroads \$9,000,000, and Tennessee one way and another nearly \$30,000,000.

—The great iron railroad bridge across the Mississippi at Dunleith, which is to open another direct means of communication between Chicago and the great West, is to be completed by the close of navigation, and the tunnel approaching it will be finished about October 1st.

In France on 9,315 miles of railroad, 89,000,000 passengers are conveyed annually; in England, on 13,662 miles, 275,000,000. Yet the mean income per mile is greater in France than England by £80, because the rates of fare are higher.

—South Carolina proposes to contribute a loan of \$1,500,000 to the Blue Ridge R. R. Her taxable property is \$300,000,000, and the interest upon the whole indebtedness can be met with an assessment of 3 mills on the dollar.

—The Western Union Telegraph Company erected on Saturday last a crossing wire over the Missouri river, at St. Joseph, from masts one hundred and fifty feet high and with a span of two thousand feet from mast to mast.

—The telegrams sent in France in 1852 amounted only to 48,105 in number, while in 1867 they reached 3,213,995, without taking official telegrams into account, which alone numbered 519,088 messages.

—The papers conveying the Milwaukee & Prairie DuChien Road to the St. Paul Co., was recently filed in the Register's office at Milwaukee, and had upon them \$5,000 in Revenue Stamps.

—The new grain crop centering at Sioux City, is being moved over the Dubuque & Sioux City R. R. and for this purpose the Illinois Central Co. send seven trains a day over that road.

—The project has been revived in Paris for the formation of an underground railway connecting the terminus of the Strasburg line with the central markets of the town.

—The Atlantic Cable is earning at the rate of \$2,000,000 per annum in gold, equal to \$2,900,000 in greenbacks, or at the rate of about 50 per cent. per annum on its cost.

—Arrangements have been perfected with the Lake Superior and Mississippi Railroad Company for the construction of a branch line from White Bear Lake to Stillwater.

—It costs a cent a word to send a telegraph dispatch from Washington to Philadelphia. But to send a dispatch from Baltimore to Philadelphia it costs two cents a word.

—There passes between London and Bombay 30,000 telegraphic messages per annum at an average of \$27 each, or \$810,000 a year.

—An exchange says that passengers will reach Crow River on the Pacific Road in a few weeks, and thus reach the heart of what is known as "Big Woods."

—A Locomotive with a few cars, have run to St. Peter's on the Minnesota Valley Road. Passenger trains will run regular in a week or two.

—A large quantity of iron for the Grand Rapids & Indiana R. R. is being delivered at Detroit.

—The Flint & Holly Railroad has been sold to the Flint & Pere Marquette Co. for \$550,000.

—It takes twelve large steamers to do the passenger business between New York and Albany.

RAILWAY LAW AND DECISIONS—A clause in an "Act for the Regulation of Railways," which passed unnoticed during the excitement of the past session, provides that any railway company convicted before two magistrates on the charge of being accessory to a breach of the peace by granting a special train to convey persons to a prize fight, shall be liable to a fine not exceeding £500, half of which is to go to the informer. The informations in each case are to be laid before magistrates of the county in which the fight takes place, and as county magistrates, even though disposed sometimes to look with lenience upon prize fighting in the abstract, as in any other district, have a great objection to having their own neighborhoods invaded by a crowd of ruffians, there is no doubt that offending railways will meet with strict justice and scant mercy.

—Herapath's *Journal* reports a case in which the plaintiff, an infant, brought an action against a railway company, through his father, to recover compensation for injuries sustained through the negligence of the defendants in not repairing fences. The defendants were possessed of a piece of land which abutted on the highway, from which it was separated by imperfect fences and a gate sworn to as having been always open. Through this fencing, or open gateway, the plaintiff wandered on the defendant's line, and a passing train cut off his two feet. The learned judge nonsuited the plaintiff, on the ground that there was no liability on the company to fence.

THE PENNSYLVANIA RAILROAD.—The trial of English steel rails on this great line, whose traffic is an excellent test of their merits, having proved entirely satisfactory, the company have contracted for thirty-three hundred tons, of which about one thousand tons have already arrived and the remainder is expected at an early day. This will make, with what has been heretofore laid, nearly ten thousand tons purchased by this company. Of the rails so far laid, only one has broken, which fact, considering that the Pennsylvania Railroad has had the longest and largest experience with them of any road in the country, seems to demonstrate their durability.

The number of local passengers carried on this road and branches on July 4th, 5th and 6th amounted to 63,004, an average of over 21,000 per day, one of the days being Sunday. These were in addition to the regular through travel on coupon tickets issued by other lines.

These facts and figures show that not only is this magnificent thoroughfare determined to have the best of every thing, but that its efforts are appreciated by the traveling public.—*West. R. R. Gazette*

NEW CROP LOUISIANA RICE.—The rice crop of the present season promises to be not only much the largest ever grown in the State, but of very superior quality also. On the 9th inst. a lot of four barrels of the new crop, the first receipt of the season, was received by the house of Firmin Martin. It was grown by Messrs. Nicholas and Norbert Martin, of Point-a-la-Hache, and milled at the Empire Parish Steam Mill; and on the 11th inst. a consignment of 13 bbls. new crop was received by Mr. Angelo Socola, grown on the plantation of Mr. B. P. Tragon. The samples which have been exhibited of these lots are very fine, being remarkably clean, with firm white grain, and very little broken. The first receipt of new crop last season was on the 21st of August, and the year before on the 10th of September. Last year Plaquemine alone sent to this market 14,453 bbls. and 10,182 sacks. The barrels averaged 230 pounds of rice each, and the sacks 100 pounds each. Last year Plaquemine produced 45,000 bbls. rough rice, and the estimates for this season reach 60,000 bbls. There are vast tracts of unoccupied lands in the State of Louisiana admirably adapted for the cultivation of rice, and the general impression is that every year hereafter will show a large increase in the breadth of land placed under tillage.—*N. O. Price Current, August 15.*

OUR SOUTH-WESTERN TERRITORIES.—A few years ago the geography of our South-western Territories conveyed the idea of an immense desert, equaling in extent and barrenness the great Sahara, and filled with desolation and death like the wastes of Tartary. But the forbidding sands have proved grains of gold, and the noxious dust that stifled the first adventurers has become a silver lining to many a miner's basin. Nevada, Colorado, Montana, Idaho, and Wyoming, have each been chipped in turn from the vast arena, and each bears products not less fabulous than Ophir. Never was transformation so complete. When Morse and Mitchel regaled our schoolboy days with descriptions of half a continent lost in sterility, and impenetrable because of its heat and dust and storms, they little dreamed that even their own pens would have opportunity to repeat the fable that what they had touched had turned to gold.—*Appleton's R. R. Guide.*

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

CINCINNATI, O.

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

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Also Brass Castings and Models made for Patent office.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{3}{4}$ inches in width, and under. For Tickets over $2\frac{3}{4}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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All orders addressed to us will receive prompt attention.

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M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R.R., Indianapolis
Aug. 2, 1886.]

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*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

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WITHOUT CHANGE OF
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PASSENGERS leaving CINCINNATI by the A. & G.W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,00am.....	7,00pm
" Dayton.....	8,20 ".....	9,15 "
Arrive West Salem.....	1,40pm.....	4,03am
" Leavittsburg.....	4,40 ".....	7,30 "
" Meadville.....	7,05 ".....	10,15 "
" Susquehanna.....	7,30am.....	10,38pm
" Paterson.....	2,33pm.....	6,17am
" New York.....	3,15 ".....	7,00 "
" Boston.....	6,00am.....	5,00pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

THE NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

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A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

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Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

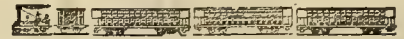
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 18:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

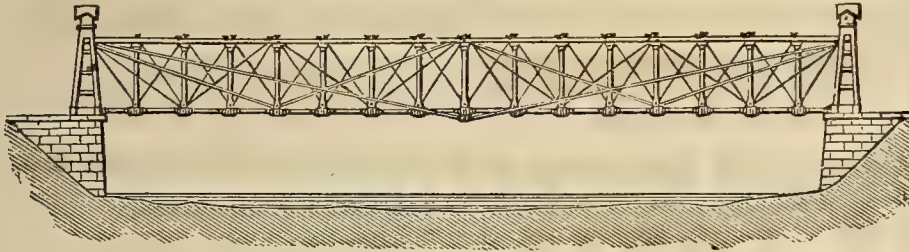
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and draft and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Steel Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

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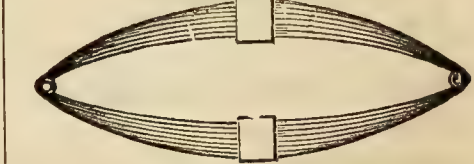
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THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

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MANUFACTURE

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ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

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BALTIMORE,

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NEW YORK, and

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HAVE THE PRIVILEGE OF GOING TO

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Fare to Washington City same as to Baltimore.

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O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots. East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.**Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	1 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY, (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.50 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

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ARCHED AND FLAT.



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Successor to

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And all Forgings for Railroad Machinery.

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JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

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The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, SEPTEMBER 17, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
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Columbus Accommodation..... 3:50 P. M. 10:20 A. M.
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Lightning Express..... 8:00 P. M. 10:35 P. M.
Night Express..... 6:15 A. M.

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Lightning Express..... 7:00 A. M. 7:25 P. M.
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MARIETTA AND CINCINNATI.
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Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City
Night Express..... 12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail..... 7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail..... 7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation..... 3:55 P. M. 10:00 A. M.
Loveland Accommodation..... 5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.
Toledo, Detroit and Canada..... 6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada..... 6:30 P. M. 6:19 A. M.
Richmond and Chicago Mail..... 7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp..... 5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City..... 6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City..... 6:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago..... 3:00 P. M. 5:30 P. M.
Bellefontaine and Sandusky..... 6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky..... 3:00 P. M. 10:30 P. M.
Hamilton Accommodation..... 6:30 P. M. 7:55 A. M.
Dayton Accommodation..... 6:30 P. M. 10:30 A. M.
Dayton Express..... 5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.
Day Express..... 7:20 A. M. 7:05 P. M.
Night Express..... 5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.
Connersville, Cambridge City and Indianapolis Mail..... 6:15 A. M. 10:20 A. M.
Connersville, Cambridge City and Indianapolis Express..... 5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.
Chicago and St. Louis Express..... 7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.
St. Louis, Cairo & Louisville..... 7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex. 5:45 P. M. 6:10 A. M.
Louisville Special Train..... 3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.
Mail..... 7:00 A. M. 4:10 P. M.
Caboose Accommodation..... 3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.
Express..... 6:00 A. M. 6:00 P. M.
Lexington Express..... 2:00 P. M. 10:50 A. M.
Falmouth Accommodation..... 6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.
Express Mail..... 7:00 A. M. 6:15 A. M.
Fast Express..... 8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express. 8:00 P. M. 10:35 A. M.

Chesapeake and Ohio Railroad.

Strenuous exertions have been made by the State of Virginia, the city of Richmond, and the Virginia Central, to continue the Virginia Central to the Ohio river. It now stops at Covington, in Alleghany county, on the head waters of the James. The Central Road from Richmond to Covington is a most circuitous one, and loses much distance. But, this is one of the evils which must be met in all these great connecting lines, where there was no original system. On the Ohio side, we can see how this Chesapeake and Ohio Road will be one of the most important on this continent. A vast stretch of populous and productive country from Cape Hatteras to Baltimore has no outlet whatever in the great Central Valley. To the Western people it is almost *terra incognita*, because shut out from the Ohio Valley by great ranges of mountains, which have yet been crossed by nothing more than turnpikes. Any great railroad which shall first make a highway through these mountains, will be followed by great changes in commerce and social intercourse. Hence, any enterprise which shall first do that, is, therefore, of immense importance, and on the Ohio side, the outlet is not so important as the fact of its getting fairly into the Central Valley. We take it for granted, that it will strike the Ohio not above the mouth of the Kanawha, nor below that of the Sandy. Indeed, we understand the point aimed at is the mouth of the Guyandotte. But this we shall consider hereafter. On the other hand, it is the outlet on the Chesapeake, which will be found in the end most embarrassing. For example, is Richmond or Norfolk to be the Eastern terminus? We have already commented in the RECORD on the necessity of making a straight line railroad from Richmond to Newport News, if Richmond considers herself to be the main point. But, in fact, that point is settled by nature. If there be a great central line from the Ohio Valley to the Southern Atlantic, it must go to the Ocean. Richmond derives all the advantage which Albany has on the great route from the North-west to New York, but she can have no more. It is impossible for the great road to stop at Richmond. It must go to the ocean. The question is, will Richmond control the route it shall take to the ocean? If it does, then it is very plain, it will go to Newport News, as we have suggested. The cost of a road down the peninsula will not be much, and it will turn the scale largely in favor of Richmond; but, outside of Richmond, in the great commercial world, there lies an immense, almost insuperable difficulty in the way of the Richmond plan. That is, that the Central Road is not by any means the best or most available route from the Ohio Valley to the mouth of Chesapeake Bay; and there is no art or power which can make

it the prominent route commercially. The Central Road is far out of the way; and in going to the Southern Atlantic from the Ohio Valley, by that route, there will be a great loss of distance, money and time, as compared with what *might* be easily done. Nor is it true, that there is any need of taking this route. There is a good, and almost direct railroad from Norfolk to Lynchburg. From Lynchburg to Covington is less than sixty (60) miles. One of the branches of the James runs near Covington and proceeds to Lynchburg. Hence, there is no difficulty in making that connection, and making it at reasonable cost. That is the *true* route through Virginia, from the Ohio Valley to the outlet of Chesapeake Bay. It will take a large part of the business now done with the South, through Baltimore and New York, and bring to Cincinnati the largest part of the Western business of Virginia, and Eastern N. Carolina. In fact, there is no new railroad, East of the Mississippi, which can be conceived of, which would have as great local influence as this. We presume the intelligent people of Norfolk see this as plainly as we do; and have taken measures to see that they are not cut off from a direct connection with the road to be made from Covington to the Ohio. The map will show that the road from Guyandotte to Norfolk is much more direct, and will be more expeditious than the one to Richmond can possibly be. The sixty miles from Covington to Lynchburg will secure the Norfolk interest from any danger of competition in Virginia, and not only that, but take the whole trade (not a small one) which goes by Baltimore, from the Ohio Valley to the Southern Atlantic.

But we turn from this view of the matter to one in which we are much more interested, the outlet on the Ohio. If the Chesapeake Road should come to Point Pleasant at the mouth of the Kanawha, then a connection with Cincinnati might be promptly made at Hamden, by a line of road not exceeding thirty miles. If it comes to Guyandotte, a connection may be made at Oak-hill, by a line of about the same length. The line from Gallipolis was surveyed many years ago, and the Marietta Railroad Company has taken steps to secure that connection. It would be a cheap and easy line to make.

There is another scheme, which locally would be much better. This is to continue the road from Guyandotte to Portsmouth, and from Portsmouth to Cincinnati. This would be locally a profitable line, as well as making the Virginia connection on a shorter distance.

This sketch of some of the elements which enter into the Chesapeake & Ohio Railroad, leads us to a view of very important consequences.

1. We think, that on the supposition of the Chesapeake & Ohio Road being made soon,

that the Lyneburg connection, and the direct Norfolk road will inevitably follow.

2. That, as a consequence, there will be another bridge over the Ohio, and an immediate connection with the Marietta Road.

3. We think, although it may be a little later, that the Ohio River Railroad from Guyandotte through Portsmouth to Cincinnati will also be certainly made.

4. The effect of all these works on the future prosperity of Cincinnati will, we think, be greater than most persons would suppose. There has been carried on a considerable trade in provisions between Cincinnati and the towns on the lower Chesapeake and Eastern N. Carolina. This trade has been carried on under disadvantages; and, nevertheless, the lard, pork and flour of the Ohio Valley have found their way there. With a direct railroad communication, this trade would be increased tenfold; and a trade in manufactures spring up with it. Here is the strong point of Cincinnati. She can manufacture cheaper and better, than any point (we believe) in the United States. What she wants is the turning of surplus capital in that direction. This will be done as time advances; but it would be much expedited, if the public mind was more instructed on this point, and public spirit more active.

Southern Railroad Connection.

CHARLESTON, Sept. 7th, 1868.

EDITORS OF RAILROAD RECORD,—*Gentlemen:* Knowing the interest which your valuable Journal has always taken in the Blue Ridge Railroad, I sent you, last week, the message of Governor Scott to the Legislature in relation to it, and his recommendations as to the early resumption, and final completion of the work. A Bill is ready before that body embodying his recommendations, and its early passage is expected.

While writing to you I will call your attention to an article in the RECORD of the 30th April last, which does our city great injustice, and which it seems to me that you should correct. In the article referred to, headed "The Southside Consolidated Act," in giving the depths of water in the channels of approach to the principal ports of the Atlantic and Gulf Cities, at high tide, Charleston is put down at fifteen (15) feet, whereas it is very common for vessels drawing sixteen and a half feet, to seventeen feet, to load at our docks, and to cross our bar without difficulty. Indeed, the British barque Annie Kimball, with railroad iron, crossed our bar in the summer of 1867, drawing eighteen feet nine and a half inches (18 9½) unloading at her dock. She paid a pilotage, indeed, of \$250, and went out afterwards, bound to Boston, drawing seventeen feet, and paying \$120 pilotage. Good sometimes comes out of evil. The main ship channel, used almost exclu-

sively by vessels of any size before the war, you will remember was closed by the United States fleet, by the sinking of old vessels and hulks. This channel has now so shallowed that it is no longer used by any but vessels of light draft; but the channel immediately north of it, known as Pumpkin Hill, has been thereby greatly deepened, affording a depth of water much greater than we have ever had before, or of which there is any record.

In this connection it would be a great omission not to allude to Port Royal, for although no city or town now occupies its banks, yet railroads at no distant day will be constructed to its magnificent harbor, with its unusual depth of twenty-two feet (22) at low, and 28 feet at high water, always accessible, and never blocked up with ice. Can it be possible that when the Southern Pacific Railroad shall be constructed, which it will be, and your own great section shall pour its growing wealth on our shores, requiring vessels and steamships of the largest size, to convey the productions of so extended a country to the distant markets of the world, that this magnificent harbor shall not be demanded for its accommodation? It seems to me that a look at the map settles this question, and the future of these things is not so distant that Port Royal should be overlooked.

I am gentlemen, very respectfully,
Your obedient servant,
H. GOURDIN.

Cincinnati—Its Railroads again.

CINCINNATI, Sept. 17, 1868.

MR. EDITOR:—In the construction of the Short Line (Tunnel) Railroad from the Newport Railroad River Bridge to Dayton, it will virtually extend the Southern railroads, by roads now completed or to be completed, to—

Loveland and Baltimore,
Sharon, Morrow and Zanesville,
Sharon, Lebanon, Xenia and Columbus,
Sharon and Hamilton, west and north-west,
Dayton, Springfield, London and Columbus,
Dayton, Springfield and Cleveland,
Dayton and Sandusky,
Dayton and Toledo,
Dayton, eastward by Atlantic & Gt. Western,
Dayton, Greenville, Union, Logansport and Chicago,

Dayton, Greenville, Van Wert, Ft. Wayne,
Dayton, Greenville, Lansing and Mackinaw,
crossing roads to Toledo, Detroit, Port Huron,
Saginaw, Grand Rapids, Grand Traverse, &c.

There is no more important trunk line in the West, than this proposed Short Line Tunnel Railroad, the cost of which may be shared by at least six roads, all centering on one of the most needed and remunerative Railroad River Bridges, located at the only practicable point to accommodate the whole railroad system of Cincinnati with Southern connections.

But, that none should be excluded from the use of this trunk line hereafter, as they would likely be by adverse interests, the different railroad companies centering here, should participate in its construction and management, and also arrange for a river bridge of sufficient capacity for all time, as well to unite on a Central Union Depot. Cincinnatians have only to examine this subject, to see the most profitable railroad investment of this country, costing but little to each interest, to perfect our system of railroads, and secure to Cincinnati its legitimate trade. But will they do it?
"PROGRESS."

City Suburbs.

A natural outgrowth of great organized communities is its suburbs, and these are now extended from 20 to 50 miles from the original city limits, by reason of our rapid and certain system of communication.

Until such means were brought into requisition the population of large cities were *huddled together* from a story or two below ground to five or six stories above, suffering all the calamities of pestilence and disease, moral and physical, incident to insufficient ventilation and *polluting* contact. None but the wealthy could get beyond this. The suburbs, therefore, of such cities were their rims, and they were respectable or not, according to the aggregation of reputable or disreputable people, yet all were effected by the taint of crowded apartments, and corrupt habits.

But, with the inauguration of the railroad epoch, came relief from these great objections to city life, until now, the suburbs of a great city may be said to be within a radius of twenty or fifty miles from its center, although its actual limits are within a radi of five miles or less. The railroad takes out every night and brings in every morning, ten to twenty per cent. of a metropolitan population, a distance of from one to thirty miles from the metropolis itself. This relieves the plethora of which we have spoken, and gives a large number of people good, comfortable, cheap homes, pure air, ample gardens, opportunity to keep a cow and horse, poultry, &c., and secure all such comforts as add to human happiness by supplying wants, preserving health, developing morals, and even granting luxuries; to say nothing of the elegant rural mansions (country seats) enjoyed by the wealthier part of the community, where they may exhibit the most cultivated taste, and lavish in the most innocent manner, the largest fortunes.

About our great eastern cities have sprung up towns and even cities, that, in the aggregate, outnumber the main point, yet they are all only the suburbs of the one great center. By its business they live. In it their people transact their business. They are of it, and were it not for the opportunities the railroads

offered, to live elsewhere, they would all reside within or proximate to the corporate limits of the great city itself.

The railroads we say have inaugurated this enlargement of city boundaries, without the extension of city objections; and how extensively have they found their profit in it? They never created a more certain and lucrative traffic. This daily, nay, almost hourly transit of passengers from the city to its surroundings and return, is in some instances worth more to railroad companies, than all the balance of the business they do along hundreds of miles of road into the interior.

The importance of these movements, not alone to the people, but to the growth of the great central marts themselves, is attracting the attention of economists, philanthropists, and speculators, and various measures have been devised by which they may be enlarged, and at the same time relieved of such errors as have grown up with the system, and by which their usefulness is impaired.

A gentleman of much experience in such matters, in London, suggests the following system of popularizing the railroad which contains some good thoughts. He says:

"I would charge the public a full figure for season tickets, but make a liberal allowance to those who hold the Company's ordinary stock in proportion to the amount of stock held. Under such circumstances, the residents would travel cheaply, and gain in a direct manner by their stock which enabled them to so travel, for under such a policy railways must thrive. The antagonism between the public and the railways would cease when the traveling public became interested in the lines as proprietors. Those shareholders who were not residents on the line would have the advantage of an improved marketable value for their stock, and having the public *with* instead of against them, an altered state of things would arise that would undoubtedly tend to the benefit of the companies."

There is merit in this scheme, though it is impracticable in this country, and if it is adopted in England we shall watch its workings with great interest.

There is no city in the country requiring outlets of this character equal to our own, and that possesses more pleasant picturesque surroundings for suburban towns and elegant country villas. Those we have attest them. Clifton, Avondale, Glendale, College Hill, Delhi, are proofs of what we say upon this matter. Yet, we want more, many more, to secure the healthy development of our city. The first plane, extending from the south foot of Walnut hills to the Ohio river, is fast filling up. Already dwellings are being built on the precipitous hill sides, and crowning their bleak tops. When business is active every building upon this lower plane is filled from cellar to garret. Business houses crowd the dwellings away, and the streets that were not long since free from the noise and stir of the lower city, are now thronged with cars and drays, and rattling omnibusses.

We have found a great outlet across the river. But that is taking our wealth and population out of our county and state; and, although we might go on in this direction to a great extent, yet it is desirable that we spread in our own county as much as possible, and keep intact the products of our business operations. To do this we must secure other avenues, (railroad avenues) to the upper plane back of our city. Those we have are doing much, and capable of more. They will soon be commanded to the extent of their capacity.

The success of the Cincinnati, Lansing and Mackinaw road will afford another outlet for our people, and considering the character of the country it traverses—the manner in which it will pass out of, and the central point of landing in the city, it will undoubtedly become our most convenient and popular outlet.

From the north side of Walnut Hills through to Sharon, a distance of ten miles, the country is particularly well adapted for suburban settlements, and with such facilities for rapid and frequent connection with the city, as this road would give, thousands of our people would find pleasant homes along this line to the point named and beyond, and county and city thereby be reciprocally benefited.

Chesapeake & Ohio Railroad Company.

GALLIPOLIS, SEPT. 8, 1868.

EDITORS R. R. RECORD:—I see that in your paper of the 3d inst., you notice the organization of the Chesapeake and Ohio Railroad Company, for the purpose of extending a railroad through from Richmond to the Ohio river. A year ago I called the attention of your citizens to the importance of this road to the interests of Cincinnati. At that time, Mr. Cutler was laboring to secure its extension to the mouth of the Great Kanawha by extending a branch of the Marietta & Cincinnati road from Hamden to this point. A contract was made for the immediate construction of this branch road; but the change made in the direction of that road and the influence of the Baltimore & Ohio road in that company put a stop to this project at once; because, I believe, it was supposed to interfere with the interests of the Baltimore & Ohio Railroad and the city of Baltimore. By this movement the Marietta & Cincinnati Railroad has become subsidiary to the Baltimore & Ohio Railroad, and is being worked solely for the interest of the latter road.

When this violation of Mr. Cutler's contract took place, some of your city papers seemed to regard it as an auspicious omen for Cincinnati. It may be so; but I am much mistaken, if it does not turn out otherwise. The influence of the Baltimore & Ohio Company has been exerted to defeat the organization of the Chesapeake & Ohio Company; it is

charged that its agents have been sent along the contemplated line of this road to prevent the counties from voting subscriptions to the capital stock of this road. We know that Baltimore is doing and will do all it can to maintain its monopoly out of Cincinnati and prevent the new line from penetrating to the city.

Two results are already apparent from this policy, prejudicial to the interests of Cincinnati. The Pennsylvania Central road is seeking to extend a branch of its road from Ulrichsville on the Steubenville line to Marietta, thence down the Ohio to a point opposite the mouth of Big Sandy river, thus securing a connection by means of the Big Sandy & Lexington line with Central Kentucky, Central Tennessee and Memphis, and then with the Western line running through Arkansas towards California. The construction of this line is enlisting largely Marietta capital. The Pennsylvania Central offers to lay the rails and run the road, if those living along the line will raise the means to grade the road. In the second place, the Virginia line is being turned south to the mouth of the Big Sandy river in order to unite with the Big Sandy & Lexington line. It will then be seen that the effect of this Baltimore move is to turn all the other lines around Cincinnati, instead of through it. The managers of the Baltimore & Ohio line know that they cannot compete with the lower grades and larger curves of the Virginia road, and hence, if their monopoly is to be maintained, it must be done by preventing the connection of Cincinnati with the Chesapeake & Ohio line.

Unless something is done to compel the direction of the Marietta & Cincinnati line to make a connection with Gallipolis and the Ohio at a point opposite the mouth of the Great Kanawha, the Virginia line will go off to Big Sandy and Lexington and Louisville, instead of Cincinnati. It is said by those claiming to know, that the Chesapeake & Ohio Company propose to contract for the immediate construction of the line from Charleston Va., to the mouth of Big Sandy. The contract would have been to open a line to the mouth of the Kanawha to Charleston, if the project of Mr. Cutler had been carried out, and in one year from this, there would have been a continuous line from Cincinnati to Charleston in West Virginia. But the influence of Baltimore has defeated this project so much in the interests of Cincinnati, then forcing on a new policy, by which all this region of Ohio will connect with Philadelphia and the whole business of the region south of the Ohio river driven by the mouth of Big Sandy, over the Virginia line, or that of the Pennsylvania Central. West Virginia and this portion of Ohio now do all their trading with Cincinnati; but let this scheme be carried out, and South-eastern Ohio is as near Philadelphia as Cincinnati for all business purposes.

Will the people of Cincinnati allow the interests of Baltimore to sacrifice its own? if the suggestion I made a year ago had been carried out, this state of things would not now exist; the capital of Cincinnati could then have bought up enough of the stock of the Marietta & Cincinnati road to have prevented its absorption as a Baltimore road, and have prevented this move of the Pennsylvania Central to reach this portion of Ohio and Central Kentucky without going through Cincinnati. The capital of Marietta could not have been driven in that direction, nor it have become the interests of this portion of Ohio to aid the extension of the Pennsylvania line down the river to Big Sandy. Unless the commercial and monetary interests of Cincinnati are soon felt in defeating this policy of the Baltimore & Ohio Railroad Company, this project of the Pennsylvania Central will be carried out and the interests of this portion of Ohio tied to Philadelphia rather than to Cincinnati. We must have a railroad outlet somewhere; if Cincinnati will not aid us in making it with Cincinnati, our business men and capital must co-operate with the Pennsylvania scheme, as the only outlet left. Let the selfish and narrow policy of the Baltimore & Ohio Company be carried out, and the Chesapeake & Ohio road driven off to the mouth of the Big Sandy and Louisville, and the regions of Ohio must join its capital and influence to carry through this scheme of the Pennsylvania Central road. These counties can grade the line along the river, as it is a cheap line to grade, and then we have a direct line with the East, and in time will be as near Philadelphia as we are to Cincinnati.

On the other hand, if the Chesapeake & Ohio line could be extended, as Mr. Cutler proposed, through from Cincinnati to tide water at the mouth of the James river, then would Cincinnati have the cheapest route to tide water of any other point in the West. For a demonstration of this fact I refer to the two articles written by me near a year since, published the one in your journal, and the other in the *Cincinnati Gazette*.

The only mode to defeat this unhappy result, is for the capital and people of Cincinnati to get control of the Marietta & Cincinnati line and complete the plan proposed and adopted by Mr. Cutler, and which was defeated by the selfish and narrow policy of the Baltimore & Ohio road. This road is creating a feeling against itself in this portion of Ohio, which in the long run will not contribute to its prosperity. Already a new road is being built from Marietta to connect with Philadelphia, and that project will in the end secure all the traffic between Marietta and the south end of the Ohio river. This portion of Ohio hitherto furnished the Baltimore & Ohio line with much business; but this Pennsylvania scheme completed, and it all goes on the

Pennsylvania Central line. The business of a great region cannot long be controlled by the selfishness of a single line; this narrow policy will in the end work out its own bitter fruits, even to those who inaugurated it.

If the through roads in Ohio are to be worked, not for the interest of our own people, but for the selfish interest of some Eastern city and company, it would be well for our legislature to require our roads to be under the control of Ohio men. The Marietta and Cincinnati line is a new charter, obtained since the adoption of the new constitution; it is hence subject to any modifications and changes the legislature may see our interests require. By means of this agency, the people of Cincinnati and this point of Ohio can compel the Baltimore influence to consult our interests as well as its own, or we can render the line anything but profitable to them.

Yours,

SIMEON NASH.

Spirit of the Press.

We copy the following from the *Commercial* of a recent date, and call the attention of our business and moneyed men particularly to the last paragraph. Let it be heeded:

"Taking Cincinnati as the radiating point, the railroad map resembles somewhat the remains of an inverted umbrella, dilapidated by age—with a portion of the sticks carried away with the 'canvas,' in the same 'blow' which broke the handle in twain two-thirds the way up—as it lies upon the ground with the remainder of the staff displayed Southward. This last represents the Kentucky Central Railroad—not because that road passes through the central portion of Kentucky, but points in that direction, just as it has done for a long time, without the extension. We said, recently, that there were some indications that efforts to build the Southern Railroad were about to be revived. We hope this is so, for the sake of the business interests and material prosperity of our city. Although the importance of this road has so repeatedly been urged upon this community through the public prints and otherwise, with but slim results thus far, we will run the risk of disturbing the slumbers of our people by again calling up the subject. For we believe Cincinnati is suffering to-day, and has been for some time past, in consequence of the intense inertia which prevails regarding this matter. Do our capitalists appreciate this—or, are they deceiving themselves with the false idea that they are not particularly interested to promote any great railroad enterprise like that in question—that the business men of the city—the merchants, the manufacturers, the small traders and others—they are the ones to build railroads, and 'castles in the air,' if they want them?"

"No," the capitalist says, "It takes a great deal of money to pay my taxes, and I have no money to spare." But suppose that, either from want of ability or other reasons, the business men do not build this Southern railroad, and trade languishes in consequence—as it surely will, to a greater extent than it yet has—does this man believe that he can yet sit still and count his income from rents

by as many thousands as he otherwise would—or, as he has been accustomed to earn? If so, he is bound to be disappointed, and deserves to be the loser for his illiberality. The business men alone ought not to be expected to build this railroad. But they, with the retired gentlemen and capitalists, should arouse themselves to the occasion, and do more than they are doing to promote the prosperity of the city which has done so much for them."

The *Commercial* in a strong article reviewing the last report of the Cincinnati Chamber of Commerce, and under the head of "Where do we Stand Commercially," says:

"Other places less favored naturally, profiting by our supineness, have stepped in to occupy and possess territory that we ought to have controlled, without successful competition. Shall the thought of the shortcomings of our citizens in this regard be ever present with them, to be made more forcible by these annual review epochs, without more decided effort to control a larger field for our commerce and our manufactures? It may not be wise to fret ourselves with a strife for supremacy in wealth and population, but it is un-American not to have that ambition, and useless to attempt to escape the inherited propensity to be ever progressing. If the citizens of our place can not indulge this propensity here, they will go where they can; and if we are not always in the line of progression, steadily working to increase its ratio, we may not impossibly, some day in the future, come to discover that our trade statistics show that our city is retrograding and established investments losing their value."

The *Chronicle* of the 15th inst. in an article upon Cincinnati and the Southern Railroads, says:

"Take down your maps, gentlemen, and observe the anomalous position our city occupies toward the large and fertile territory south of it. Railroads to the West, railroads to the North, railroads to the East, extend their arms all through those regions, drawing them to us; but with the territory south, which, if not now, will eventually be of more importance to us than any other, not a single direct connection. One little railroad, extending halfway across Kentucky, it is all we have."

* * * * *

A few of our citizens have urged this matter of Southern railroad connections for some years, but the majority have not seemed to realize the advantages, to be derived from such connections, and their absolute necessity to the future greatness of our city, and have contented themselves with voting for resolutions in favor of all the projects presented, without devoting their energies or means to making any of them successful.

* * * * *

It can not be said as an excuse for them, even if it were a proper excuse in these days of enterprise, that they have not been invited to come over and "enjoy the land" and reap the harvest thereof. For some years they have not only been invited by the citizens of those States to come over to them, but urged and entreated to do so; nay more—if our citizens are insufficient for so long a road, they will meet them half way, and will pour their wealth into our city over roads of their own construction. Charleston and Savannah, Knoxville and Chattanooga, McMinnville and Nashville are all beseeching us to meet them at the Kentucky State line. They are anxious for our merchandise, and desire to

manufactures, and in return will give us coal and iron, silver and copper ore, corn and cotton, wheat and tobacco, and as great a diversity of agricultural and mineral products as any region in the known world produces. Let Cincinnati but agree and contract to build and complete 100 miles of railroad south of Lexington by the 1st of January, 1870, and in less than three years from date cars will be running through without change from the Ohio to Savannah, to Pensacola and to New Orleans. Yet our purse-strings remain tied. Mortgage securities are in demand, and dividend-paying stocks are sought after, while our manufactories languish, and our merchants are filled with gloomy forebodings.

The men who have hopes and interests in the future of our city must look after these matters. They must compel each other to enthusiasm and energy, and inspire foreign capitalists with confidence to come, to their aid. From the old land marks who still linger among us with their strong boxes under their beds safely locked, expecting immediate returns from all their investments, they can expect very little. But these roads must be built. They are a necessity. There is danger of the railroad lines running through our city becoming mere side tracks. Already the great through lines of travel East and West are beginning to center at Chicago and St. Louis, and Louisville is making energetic and hopeful efforts to become the main point on all the Western routes South. In this she can be frustrated if our people become fully aroused to their interests.

A correspondent of the *Commercial* in the issue of the 16th, speaking of Southern railroads, says:

"The railroad to the South should first claim our attention, for it has been repeatedly acknowledged by some of our leading citizens that the present is a critical hour for Cincinnati. She is flanked on the East, North and West by rival and hostile interests, and her only hope and safety lie toward the South. She must stretch her iron arms in that direction and draw the trade of the South to her doors, or the decline of her prosperity is as certain as any event in the future.

The immediate undertaking of a "Southern Railroad" to a full connection with all the principal railroads South, is a duty devolving upon Cincinnati from which she can not shirk the responsibility. She can not stand idle longer, devoid of all exertion, and look upon the efforts now being displayed by her rival sister on the West, to pluck the fruit from Southern fields without arousing from her present disinclination to action. We should put our shoulders to the enterprise at once, for we are informed that the South is doing much to meet a Southern Railroad constructing connecting lines.

Gov. Scott, of South Carolina, in obedience to his expressed intention in his late inaugural message, has submitted a plan to the gentlemen of the Senate and House of Representatives, for the early completion of the Blue Ridge Railroad. In this plan the Governor invokes such action by the Legislature as shall speedily achieve this great result.

The Knoxville and Kentucky Railroad Company are putting forth every exertion, with Tennessee State aid, to carry their road forward to the Tennessee State line, at the earliest practical moment. We hope they will accomplish the task, but we doubt the propriety of using the proceeds of first mortgage bonds upon graduation.

We are assured that work on the Chat-

taanooga and Kentucky Railroad is about to commence under the direction of a new organization. Capitalists of high standing have opened negotiations for this road, which will result in their favor, and the road go into their hands.

The new organization will be prepared to put this road under contract as soon as those who are directing the fortunes of the Southern Railroad shall have decided upon its construction from Cincinnati to the Kentucky State line.

It is well known that this road from the Kentucky State line to Chattanooga via the Emory River Gap, will afford a more complete connection with the Southern system of railroads than the one to Knoxville.

The Wells Valley Railroad, leading from Chattanooga via Elyton, to New Orleans, will be completed before the close of another season, affording a direct connection with the latter city and Mobile.

Boston capitalists have recently purchased this road, and have assumed the direction of its affairs.

The railroad known as the Dalton and Blue Mountain, under the direction of Messrs. Barney and Breed, is rapidly approaching completion. This road, when completed, will connect Chattanooga with Pensacola and Savannah on lines almost direct.

The Cleveland and Ducktown Railroad has commenced construction. This road will put Knoxville and Chattanooga in close communication with the great copper mines of the South.

The Bridgeport and Jasper Railroad is being pushed forward via Pikeville, to a connection with the Southwestern Railroad at or near Sparta.

The Tullahoma and McMinnville Railroad is being extended, under the auspices of the Southwestern Railroad Company, to a connection with the Southern Railroad, at some point in Kentucky. This road will be extended south to Decatur, at the earliest opportunity, and when the whole is completed, the great trunk line to Cincinnati will have secured a first class subsidiary line.

All these roads just mentioned, now in course of construction, are directly interested in the early commencement of the great trunk line from Cincinnati to the South, as they all seek a connection."

The *Times* of the 16th gives the following intelligence of Railroad movements in Michigan:

Of the new railroads in Michigan, the greatest activity is shown with the Detroit and Howell; East Saginaw and Pere Marquette; St. Joseph Valley; Kalamazoo, Allegan and Grand Rapids; Bay City and Port Huron; Port Huron and Chicago Air Line; Grand Rapids and Indiana; and there is some talk about a road from Jackson to Fort Wayne, and a great deal of agitation about a consolidation of the old Amboy, Lansing and Traverse Bay Road into the Cincinnati and Mackinaw Road.

The subjoined paragraphs from the *Commercial* of the 18th, speak for themselves:

It having been suggested on the street, within a day or two past, that two or three articles in which we had occasion to speak in rather complimentary language of the energy and enterprise of the managers of the Cincinnati Connorsville & Indianapolis Junction Railroad Company, were dictated by its officers or others in the interest of the road,

we take occasion to disabuse the mind of such sensitive readers, and deny that they had any thing to do with furnishing them, or that they were privy to their publication, even, until they read the articles in the *Commercial*.

We take considerable pains to keep posted on railroad matters—especially when our city is directly interested—and shall endeavor to impart the earliest information of general interest. As to that which is proper to publish, we are not convinced that it would be imprudent even to review the course of our leading railroad managers with special reference to what they have done to promote the real interests of Cincinnati, and, possibly what they have omitted to do.

That's right! Let the entire city press assume the same bold position and speak out upon the railroad interests of the city, and they will not only promote immensely the public good but add largely to their popularity and usefulness. The "mealy mouthed" period has passed.

Cincinnati Chamber of Commerce.

REPORT OF BOARD OF OFFICERS.

"CHAMBER OF COMMERCE, }
CINCINNATI, September 7, 1868. }

"To the Members of the Chamber of Commerce:

"The Board of officers, in presenting their report of the transactions of the Chamber during the past year, take pleasure in congratulating the members upon the favorable condition of its affairs, which it is their duty to present.

"During the year no changes of moment in the history of the association have occurred, although it has been marked by many occurrences of local importance to our city.

"The regulations in regard to inspections have been continued without change, with the exception that flour in barrels is now required to be head-lined, in order to be in merchantable cooperation. The board is not advised by the committees of inspection that any changes in the rules, as they now stand, are desirable.

"The Board of Trade of Cleveland has addressed a communication to this Chamber recommending the repeal of all laws regulating the standard weight of grains, and the grain committee now have the consideration of the matter in charge, but no report has yet been received.

"In the early part of the year, on the request of the Louisville Chamber of Commerce, a tare of 12 per cent. on sugar was adopted, to take effect upon the adoption of the same regulation by the merchants of New Orleans and St. Louis in December last; but as far as we are advised, this has not been acted upon in those cities.

"About the same time the Boston Board of Trade endeavored to establish a tare on cotton of the weight of baling, but the committee of this chamber reported adverse to its adoption, upon the ground that such action would be a great discouragement to the planting interest, and inadvisable at the present time, and that furthermore the tare allowed in European ports is always calculated upon in all purchases for that market.

"Complaints were made to the board in November last in regard to the regulations of the board of health as to the inspection of

hogs, the allegation being that the requirements of that body were unnecessarily severe. The claims of the contractors for the removal beyond the city limits of dead animals were also deemed arbitrary and unjust in regard to the hogs condemned. The committee to whom the consideration of the subject was referred were unable to suggest any practicable means of obviating the difficulty, and it being too late to effect any change in the legislative position of the question, the whole matter was postponed.

"The executive committee of the River Improvement Convention, which met in St. Louis in February, 1867, assessed the sum of \$2,500 against the city of Cincinnati as the share of her citizens in the expenses incurred in furthering the objects of said convention. An application was made on behalf of the Chamber to the City Council of the city of Cincinnati, for the appropriation of that sum from the City Treasury, for a purpose in which all its citizens are alike interested. As yet no action has been taken by the City Council in regard to the subject, and pending its action, at the earnest solicitation of the executive committee of the River Improvement Convention, the board have, in accordance with the resolutions of the Chamber, March 17, on the report of the river improvement committee, advanced the sum of \$1,500 towards the payment of the assessment.

"In October last a memorial from the cotton merchants of the city was presented to the board, recommending the forwarding of a memorial to congress to take off the tax imposed on cotton. The board, upon the consideration of the matter, added the subject of the removal of tax on sugar, and, upon the recommendation of the committee, the Chamber forwarded a request to our Representatives in Congress to endeavor to obtain a repeal of these burdensome taxes.

"The consideration of the span for the proposed bridge for railway purposes across the Ohio River, at this point, having been brought before the Chamber, its influence has been used to prevent the erection of such a structure with any span by which the interests of river navigation would be disastrously affected; and in May, upon the application of the bridge committee, the board appropriated the sum of \$200 towards defraying the expenses of employing an attorney to draft a bill, to be laid before Congress, prohibiting the erection of bridges over navigable rivers which would prevent the safe passage of vessels under the same.

"The subject of railways and railway communications has received some attention during the present year, but there has been no movement such as the board would have been glad to see among the members of the Chamber in this behalf. Beyond the adoption of a memorial in regard to the Kansas Pacific Railroad, but little has been done. It has been represented to the board that the rates of freight on railroads are adverse to the interests of this city. It appears that freights from Cincinnati to points within which it is the legitimate business center, are much greater than from Eastern cities to the same points, the effect of which is to drive business to other places. The board has appointed a committee on this very important subject, but as yet no report has been received.

"A committee was appointed to take action in regard to alleged frauds on the Internal Revenue Department in the manufacture of whisky and tobacco. A report was made in December last, which was forwarded to Con-

gress, and presented substantially the view of the matter which has been generally taken by the merchants of the entire country, and been the basis of action of the national legislature in that respect.

"The board regret that the central system in the measurement of grain failed to be adopted, as proposed on the 1st of August ult. This failure was not only due to a want of complete co-operation, but also to the fact that legislation making it the measure of adjustment between the buyer and seller, it is absolutely necessary to insure success in the measure.

The board congratulate with the members of the chamber on the prospect of obtaining a sufficient subscription to the building bonds of the chamber to be used in the erection of a new hall. Of the sum of \$350,000 proposed to be raised, over \$100,000 have already been subscribed, although more than half the committees have not as yet made any effort whatever to accomplish the task apportioned to them. The subscriptions asked are not to be considered as donations, for the bonds are intended to return a good interest on the investment, and will be secured not only by the responsibility of the Chamber as a corporate body, but also by a mortgage of the property itself, in the purchase of which the funds will be expended.

"The board would call the attention of the Chamber to the growing importance of the united effort on the part of the merchants of the entire country, especially in matters of national legislative action. The formation of a National Board of Trade, which has been successfully inaugurated, will greatly aid us in attaining the desired result, and deem it unnecessary to urge upon the members the necessity of the Chamber exercising the greatest care in the selection of its delegates, in order that its influence in that body may be worthy of the commercial importance of the city which they represent."

The World Moves!

RAILWAY SIGNALS.

"If railway signals were properly worked by those having charge of them, and their signification accurately interpreted by those in charge of the trains, an accident would be a matter of sheer impossibility. The sight is the organ usually appealed to, but under circumstances where it might prove fallacious, the aid of the ear is called into request as well. The English system of railway signalling may, says the *Mechanics' Magazine*, "be said to be as perfect as the ingenuity of man can make it, and the combination of the play of the semaphore or lamps with the points governing the lines upon which the train is to run, is the climax of the whole arrangement. As might be readily inferred, different nations adopt different views with respect to the manipulation and signification of signals. The same principle of signalling prevails upon both the English and French lines. When the arm of the semaphore is raised, and the red light exhibited—the latter, of course, only shows at night—the passage of the approaching train is barred. So soon as it is lowered, either partially or altogether, the train may proceed, while the lowering of the arm at night is accompanied by a change of the red light to green or white, according as the descent is partial or complete. The contrary principle is in force upon the German lines. The signals there are raised not to arrest but

to permit the passage of the train, the absence of all signals necessitating the stopping of the train. The principle is exactly the reverse of that prevailing among us and the French. Either of them, when carried out in its integrity, is as good as the other, although it is asserted that the German system requires a larger staff of signalmen to attend to it than what is demanded by the other, and is also better adapted for single than double ones. The coupling of the signals to the points, so as to render their united working practically contemporaneous, has been carried out in France under the Vignier system, and the arrangement at Charing cross and Cannon street fully demonstrate what Messrs. Saxby and Farmer have accomplished in our own country. In dense fogs it is manifest that what might be termed optical signals would be useless, and, therefore, detonating or fog signals are employed. These are generally placed upon the rails by hand, and the explosion is a warning to the driver and guard to pull up at once. By a most ingenious method, the Lyons Company adopt them to act in consonance with the signals, the indications of which they repeat accurately, only in a different manner. A couple of detonators are placed alongside the rails at about a quarter of a mile distant from the signal post or station, and in time of fogs they are attached by connecting rods to the signalling gear. Directly the danger signal is up these 'crackers', as they may be called, are lifted on the metals, and their explosion is an indication to the driver that the road is barred."—*U. S. R. R. & M. Register*.

Humanity demands, and the security of property demands, the adoption of the best signals upon railroads, and that company is culpable in the highest degree that allows prejudice, ignorance, or niggardliness to interfere with the use of the most improved means of preventing accidents.

Life, and property to an enormous amount are entrusted to the care of railroad managers, and they would be quite as justifiable in dispensing with the locomotive bell, or whistle, or the car brakes, or their watchman on the track, or any other means required by the law, and by public opinion, or their own security in purse and person, as to refuse the adoption of any new practicable plan to prevent the repetition of such dreadful calamities upon railroads as shocked our people last winter.

We give the above plan of signalling trains, because it is a good one, and highly approved in a country where no expense nor pains are spared to prevent such catastrophes as we have mentioned. But, at the same time, we are compelled to say, that it is very defective in many particulars, and not comparable with the invention we chronicled two weeks since under the head of "A Much Needed Invention." This improvement seems to be the very perfection of railroad signalling. It is done by electricity and therefore more rapid than any other. The train itself is the manipulator, and not liable to the aberrations of human action. It signals repeatedly, and to the ear, and is not consequently subject to the mistakes of optical illusions; (a fruitful source of calamities among railroad men). It communicates

with trains upon the track, in motion or at rest, to bridgemen, switchmen, stations, depots, road crossings, and upon curves, all in advance of the trains approach, and with unerring certainty. And besides, it is simple and cheap, and relieved from liability to disturbances, or getting out of repair.

It is but two months since Letters Patent were issued for this improvement, yet it has passed under the review of scores of railway managers, and with their entire approval.

This invention should be looked into at once by our railroad officials, and we think adopted upon all the roads in the country. With a knowledge of its merits, they are directly responsible for all accidents its use would have prevented.

LIABILITY OF RAILWAY EMPLOYEES IN CASE OF ACCIDENTS—A TEST CASE.—It will be remembered that an Act of the Pennsylvania Legislature was passed in 1865, making conductors, engineers and brakemen criminally responsible in case of deaths caused by carelessness in running trains. It appears that the first case under the new law has just come up in Venango county. In May last an accident occurred to the Venango City accommodation train, by which Miss Marshall, Miss Hoover, and a man named Angel, of Franklin, were more or less injured. It was charged that the engineer, Thomas Bell, was running beyond schedule time, contrary to the instruction of the conductor of the train, which, it is alleged was the cause of the accident, and by which the train was thrown over an embankment and into the river. The father of one of the injured young ladies brought a criminal action against the engineer and conductor, J. W. Blade. Bell, the engineer, was arrested and confined in the jail at Franklin, but was subsequently released on bail. Blade, who was seriously injured, entered bail for his appearance at court. Railroad men generally are deeply interested in the trial, and as able legal gentlemen are engaged in the case, the progress of the trial will be watched with interest.—*U. S. R. R. & M. Register.*

Receipts of the Western Union Railroad Company for the week ending September 7:

	1868.	1867.	Inc.	Dec.
Freight.....	\$17,510 20	\$22,431 70		\$4,921 40
Passengers	4,086 05	3,962 65	\$123 40	
Express and Tel.	350 00	320 00	30 00	
Mail.....	375 00	375 00		
Totals.....	\$23,321 35	\$27,089 35	\$153 40	\$4,921 40

Receipts from January 1, to September 7:

1868.....	\$489,739 26
1867.....	421,133 87
Increase.....	\$ 68,605 39

—Sleeping cars now run through from Louisville to New Orleans, via Memphis, Grenada, Canton, and Jackson. The line from Louisville to Memphis, 377 miles long, is operated by the Louisville & Nashville Railroad Company. The time from Louisville to Memphis is twenty-one hours.

—Advertisements are out calling for six hundred teams and five hundred laborers, to work on the St. Louis, Shelbyville and Detroit Railroad.

Railway Items.

—Work upon the Iron Mountain Railroad of Missouri is progressing rapidly. Track laying commenced at Bismarck Sep. 1, and will be finished to a point four miles below Farmington within sixty days; and the track has already been laid from Belmont to Charleston. Fifteen hundred men are employed upon the line in the various labors incident to railroad construction, and at the tunnel, fifty miles from Bismarck, four sets of hands are constantly employed—two at each end—working night and day. It is estimated that it will require eight months to complete this tunnel, which is twelve hundred feet in length, and that, when finished, the whole work will be completed, and cars will immediately after run through from St. Louis to Belmont.

—The Dixon *Telegraph* says it is probable that a section of the Dixon, Peoria & Hannibal Railroad will be early put under contract, from Yates City to Buda, on the Chicago, Burlington & Quincy Road, a distance of about forty miles. There has been pledged to this enterprise by the towns along the proposed line, \$230,000 by a vote of townships and incorporations, with other guarantees, making up the required sum of \$300,000. This, with the pledge of the Chicago, Burlington & Quincy Road for certain assistance per mile, secures the enterprise beyond a question.

—The North-western Railway Company have in process of construction a cut-off from Missouri Valley Junction, directly west to the Missouri river, and the track already laid; and a transfer boat will be ready for use within the next twelve days. Twenty-six miles west of the river it will connect with the Pacific Railroad, 47 miles west of Omaha, making the shortest possible connection with that road, and will be completed and in running order in December. This route is fifty miles shorter than that by Omaha.

—The Central Pacific Railroad Company are boring an artesian well near Maag's Station, and about a mile west of Hot Springs. The water from the springs, and in fact of all the water that has yet been found in that vicinity, is so strongly impregnated with minerals of various kinds—sulphur, salt and alkalis predominating—as to be unfit for drinking. The object of the company is to sink to a sufficient depth to procure pure and sweet water.

—Contracts between the Leavenworth & Des Moines, the Chicago & Rock Island, and Michigan Southern Railroads have been closed and signed. This secures the completion of the Leavenworth & Des Moines Road, and a direct connection with the running of through trains to New York via this route.

—On the 28th ult. a contract was concluded between the Central Pacific Railroad Company and Messrs. West, Benton & Fair, for the grading of one hundred miles of road, commencing at Monument Point and running westwardly. The work is to be commenced immediately and finished by the first of Dec. Monument Point, or Point Lookout, as it is marked on the map, is near the north end of Great Salt Lake, in about 41½ degrees north latitude, and 112½ degrees west longitude.

—City passenger railways are popular in Germany. Pesth has two and is busy at a third encircling the city. Vienna has one railway and is engaged in building two others; besides these three, a fourth will be commenced this Autumn. At Stuttgart, in Wurtemberg, the first passenger road is now in course of construction. In Austria, the general government takes ten per cent. of the gross proceeds of the roads, and the city government takes five per cent. more.

The Fremont (Neb.) *Tribune* says that progress on the Sioux City and Pacific railroad is being made rapidly—over seven hundred hands are working on the grading—and is confident the road will be running through to that point by the first of December. This branch crosses the Missouri river some thirty miles above Council Bluffs, connecting with the North-western at its junction in Harrison county with the Sioux City road now in operation.

—The Directors of the proposed East Saginaw and Port Huron Railroad have decided to adopt the direct line to Port Huron, and instructed the Secretary to open correspondence with the Grand Trunk and Great Western Railroads in regard to furnishing iron, rolling stock, etc. The engineer thinks that the whole line can be prepared for \$400,000, ready for the iron.

—It is stated that a powerful and rich company has been formed in London, with Cyrus W. Field as controlling man, to form a continuous line of telegraph from England to China, by way of the Mediterranean, Egypt and India. This company has purchased the cable line from Malta to Alexandria, and is about to re-lay the cable in deeper water.

—It seems that the northern terminus of the St. Paul & Superior Railroad will be at Rice's Point, so that the advantages of the Bay of Superior will not be lost to the railroad. The proprietors of Superior have resolved to build the Superior & State Line Railroad, so as to tap the main trunk at or near Twin Lakes.

—The ground was broken several days ago on the branch railroad from Richmond, Ray county, Mo., to Lexington and a large force of hands set to work. The contractor is confident he will complete the grading in sixty days.

—The bond for the right of way through Montgomery county for the Burlington & Missouri Road was completed last week, and forwarded to the Superintendent at Burlington. This bond guarantees to the Company the right of way through the county, providing they run their road and locate a depot within one half mile of Red Oak Junction.

—The track on the St. Paul & Pacific Railroad is now laid to a point thirty miles beyond Minneapolis, and is within five miles of Crow river. Crow river will be reached in the course of five of six weeks, and twelve miles of track beyond that point will probably be laid before winter.

—A telegram from Webster city, Iowa, says, "The extension of the Dubuque & Sioux City Railroad to this place is now a certainty. The voters of this county have so decided. This opens a flattering prospect before us and there is much rejoicing. The road will be finished to this place early next year.

—So short of sleepers is the Union Pacific Company, that it has been seriously proposed to lay a temporary railroad thirty-six miles in length to the head of the Laramie, where they can be obtained in abundance.

—A new railroad project is on foot which has for its object the building of a line from Knoxville to Leighton, Iowa, on the Des Moines Valley Railroad, a point fifty-four miles south of Des Moines.

—Several gentlemen from the East, belonging to the South Pacific Railroad Company, have arrived in St. Louis, on business connected with the vigorous prosecution of the work on that road.

—The Minnesota Valley Railroad is completed to Kasota, three miles from St. Peter. The grading with the exception of two or three cuts is completed to Mankato.

—Des Moines voted last Saturday to raise the tax to aid the Des Moines Valley Railroad. Work will be commenced on the road north, within a few days.

—Gov. Marshall has delivered to the Winona & St. Peter Railroad deeds of 176,000 acres of land, being a portion of the land grant belonging to that road.

—The construction of the Rock Island, Alton & St. Louis Railroad continues to be agitated in McDonough and adjoining counties.

—The New York and New Haven Railroad Company are burning gas for an experiment on one of their night cars.

—The citizens of Ontonagon county, Lake Superior, are talking of a new railroad from Ontonagon up the Flint Steel valley.

—A street railroad company in St. Louis has been heavily fined for not running cars to its terminus.

—A new depot for the Toledo, Wabash & Western Railway is being built in Toledo.

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SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-end package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO. OF FORMS.	PRICES.	SIZE NO. OF FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

MITH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
Aug. 2, 1891.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.58am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,

for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

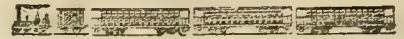
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1891, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front be East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.
State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at
1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

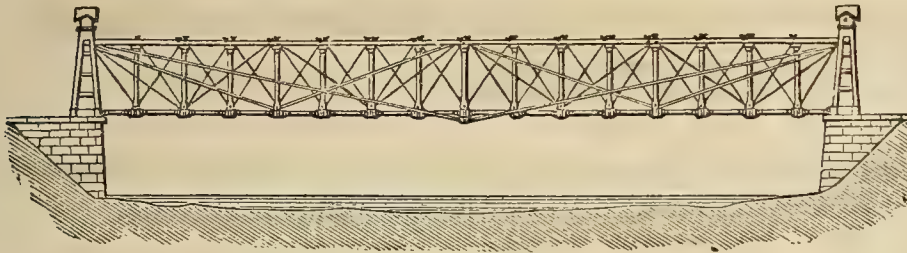
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent,
F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

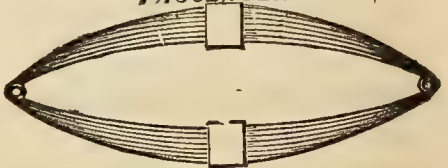
68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS.

FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 30 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 133 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago
INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 30 am	2 30 am
Cairo and St. Louis Express.....	2 20 pm	4 08 p.m.
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
--	--------	---------

Lawrenceburg Accommodation.....	10 10 am	8 35 am
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Connersville and Cambridge City.....	4 00 pm	9 15 am
--------------------------------------	---------	---------

Lawrenceburg.....	4 45 pm	2 20 pm
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Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

Successor to

McDANIEL & HORNER,

**Locomotive and Railroad****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
BY G. MORRIS.

Philadelphia, Wilmington & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY****TRAINS LEAVE PHILADELPHIA FOR THE SOUTH DAILY**

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, }
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, SEPTEMBER 24, 1868.

CINCINNATI INTERESTS.

Through Connection and Central Depot.

We have for the past fifteen years endeavored to advocate, without fear or favor, such measures as we deemed to be for the real and true interests of Cincinnati. While our views may not always have accorded with those of many of our friends, yet we have the satisfaction of knowing that although all the great works that we have advocated have not been constructed, yet even those whose private interests may have induced them to oppose them for the time being, have admitted that they were the best for the general good.

It has finally been decided by the courts that the *through connection* between the Little Miami and the Ohio & Mississippi Railroads is legal; and, hence, arrangements have been made to complete the track and put it in working order.

Now, we have always contended that this was not what the railroad companies wanted, and although some parties regard it as a triumph, yet we do not, and believe the same efforts expended in the proper direction would have secured them what they do want and need—the *through connection by Tunnel under Sixth street with a Grand Central Depot in the Sixth street Market space*.

That we are not alone in holding that locomotive traffic through and across our streets that are used as thoroughfares for common traffic is impolitic, we quote the following from the very able report of Capt. JAMES B. EADS, the Engineer of the St. Louis Bridge Company:

"It is preposterous to believe that the city would permit steam trains to pass over either route *above ground*, both being through portions of the city densely populated, and both crossing the same great thoroughfares. At either location a tunnel is a necessity for unobstructed railway traffic."

Hence it is designed to construct a Tunnel from the western end of the Bridge at St. Louis, so as to enable trains to pass through the city without obstruction, and without danger to life or property, at all times and hours, by steam. The Engineer says this tunnel will be "5,000 feet long, connecting the railways tracks on the Bridge with the low ground forming the bed of the old Chouteau pond, on which the Pacific track is laid."

WHAT ROADS ARE INTERESTED.

It is claimed by those who are not familiar with the subject, or who take but a contracted view of the present and future railroad system of Cincinnati and wants and capacity for a more extended growth and prosperity, that it is only the "Little Miami and the Ohio & Mississippi roads that are at all interested in this through connection." Let us look at this for a moment:

First.—It is a settled fact that the Bridge over the Ohio River will be built at Newport, and although the immediate design is a direct connection between the Little Miami and the Louisville, Cincinnati & Lexington roads; yet we take it for granted that the Kentucky Central road *will be extended* to Knoxville, Chattanooga and Nashville, and will also cross this same bridge. We are aware that there is talk of another bridge below the city, but there are difficulties in the way of its construction that do not exist at Newport. All the roads coming into Cincinnati will want connection with either one or the other of those Southern routes.

Second.—It is but a question of time, (and we believe that the time has now arrived when it should be done) as to the construction of the Tunnel entrance to the city. When this is finished the following roads will undoubtedly make use of its tracks to enter the city, as they will all save at least five miles of travel, and come direct to the heart of the city without crossing streets or interfering with common traffic:

Cincinnati, Sandusky & Cleveland.
Cincinnati, Lansing & Mackinaw.
Cincinnati, Wilmington & Zanesville.
Cleveland, Columbus & Cincinnati, via Delaware, Springfield & Dayton.
Marietta & Cincinnati.
Cincinnati & Indianapolis Junction, and the Little Miami, for its passenger traffic.

All these roads can profitably come to this short line route, and all want connections with the Southern trade by the bridge, and the Western traffic by the *through connection under Sixth street*.

Are not the Western roads interested in an exchange of traffic, both passenger and goods, with the other roads? There is no way in which this can be so cheaply, so perfectly, and so satisfactorily secured, as by the method we propose, viz: the *Tunnel under Sixth street, and the Grand Central Depot in the Sixth street Market space*.

THE COST

Has been the great bug-bear. Let us see what it will be. We have taken great pains to obtain correct information, and, with the assistance of a competent engineer, are enabled to present the following estimate, in detail, of cost. The entrance to the Tunnel at the Broadway end, would be nearly on a level with the track on the River Bridge:

ESTIMATE for Tunnel under Sixth street.
Length 6,000 feet (including Market space):
Width, 25 feet: Height, 19 feet: To be built in sections, and by open cut.

Excavation 219,414 cubic yds @ 50c	\$109,707
Refilling 50,000 cubic yds @ 20c	10,000
Masonry 17,500 perches, in side walls @ \$10	175,000
Arch 6,582,000 bricks @ \$25,00 per thousand	164,550
Coping	4,000
Concrete 4,444 cubic yds @ \$7	31,108
Sewers, to provide drainage for those intercepted	36,000
Nicholson pavement, 2040 squares @ \$25,00	51,000
Railroad track, 1 15-100 miles double track @ \$24,000	27,600
Ventilation, etc	20,000
Engineering and contingencies, 15 per cent	94,344

Total.....\$724,309

The above includes Tunnel under the Market space. If Central Depot be erected there, deduct for say 800 feet of Tunnel..... 70,216

Balance, exclusive of Market space...\$654,093

DEPOT—SIZE AND COST.

To give sufficient room to accommodate the traffic of all the roads it would be necessary to condemn the property between Sixth and Longworth streets and from Elm to Central Avenue. This would give a space 845 feet long, and 246½ feet wide, leaving Longworth street, and a space equal to that, now on the North side of the Market house undisturbed and unobstructed to common traffic. By leaving an area around the Depot at the West and East ends, and South side of fifty feet, and on the North side of thirty feet, with inclined planes at each end, so that omnibuses and carriages can descend to the level of the Depot, it will still leave for the Depot proper a space of 735 feet long, by 156½ feet wide, affording ample room for twelve tracks. The following is the detailed estimate of cost:

166,000 cubic yds of excavation @ 30 cents	\$49,800
10,915 Perches of Masonry in Area walls @ \$7	76,405
2,100 Linear feet of Iron railing around area @ \$5	10,500
1,783 Perches of Masonry in foundations @ \$7	12,481
3,700,000 Brick @ \$13 per thousand	48,100
Doors and Windows	4,500
Iron frame for roof	50,000
Sheeting for roof	6,000
Tin for roof, 1,200 squares @ \$10.00	12,000
250 Linear feet of Iron Bridge at Plumb street so as not to obstruct common traffic	10,000
Painting	5,000
Engineering and contingencies	25,979
832 squares Nicholson pavement @ \$25	20,800
645,000 feet lumber, b. m. for floor @ 50c	32,250
Iron for 12 tracks, 156 tons @ \$60	9,360
Carpenter work in fitting up baggage rooms, ticket offices, etc	20,000

Total.....\$393,125

LAND DAMAGES.

We estimate the property on Sixth street at \$450 per front foot, and on Longworth street at \$250. This, we are assured, is a liberal estimate, making 800 feet @ \$700.....		\$560,000
To this add Cost of Depot.....	393,125	
“ “ Tunnel.....	654,093	
Total Cost.....	\$1,607,218	
Deduct value of 335,400 cubic yards of gravel and sand at Market price, 50c per yard.....		167,700
Total net Cost.....	\$1,439,518	

WHO TO PAY THE COST.

The Constitution of Ohio positively prohibits towns or cities from aiding any company in the construction of works of internal improvement, but it does not prevent the construction of avenues, or other means of transit for the accommodation and traffic of cities. And as many citizens are unwilling to contribute as individuals, because others equally interested would refuse, we suggest, to make the burthen and benefit equal and uniform on all, that the CITY CONSTRUCT the WHOLE, and charge each road \$1.00 per year rental. This would enable the council to do what many have professed to be willing to do, namely, anything that would promote the commerce and business of the city. Surely, nothing would do so much to restore us on the central route of travel, and

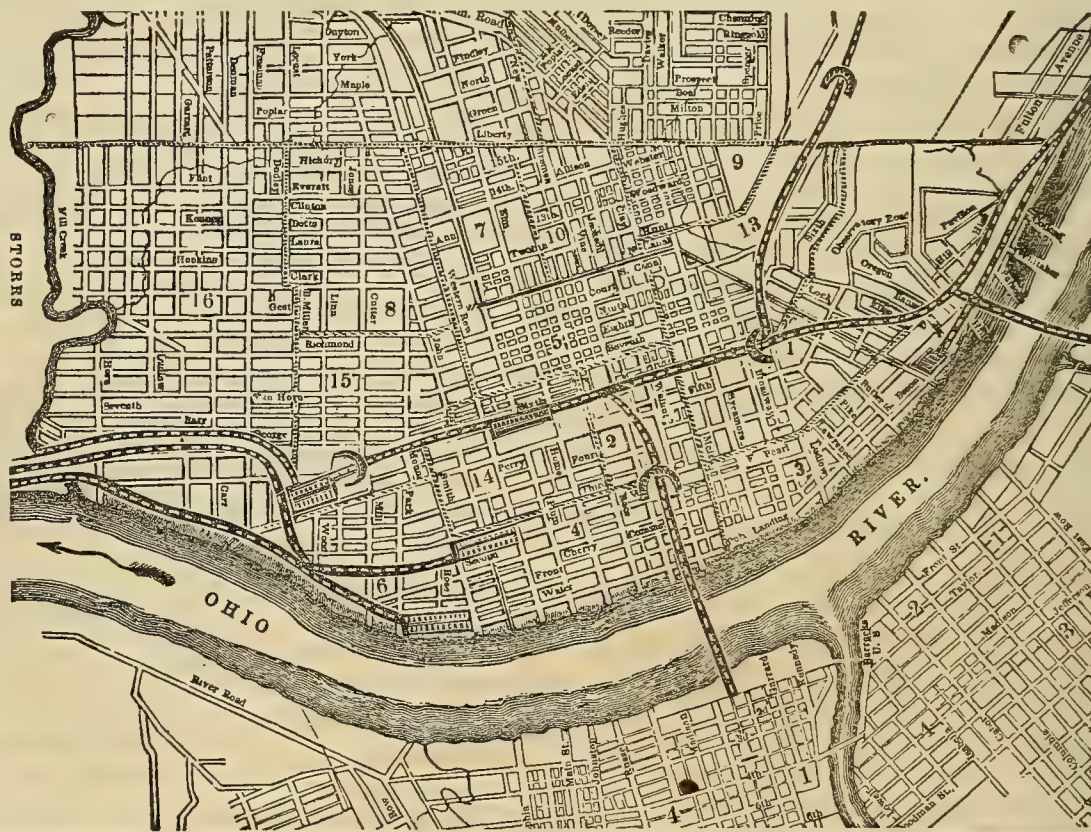
cheapen the transit of goods as this. All these enterprises should go together and constitute one grand whole, the Bridge—the two Southern roads—the Tunnel entrance to the city, and the Through connection, by Tunnel under Sixth street, and the Grand Central Depot. All to be constructed by private enterprise and capital except the last, which can and should be done by the city, sanctioned by a popular vote.

We will further add, that the maxim is well understood among merchants, that “to possess facilities for trade creates trade;” on this subject Capt. EADS, in his report says: “Noth-

ing invites commerce so much as facilities of transportation; nothing invites population so much as facilities of communication.”

We could go into a detailed estimate on the saving of time and money to travel and traffic by the construction of the Tunnel Connection, and show an annual saving equal to original cost, but our article is already too extended.

We again give our map illustrating the problem of the Through Connection and Central Depot. It cannot fail to be of interest in connection with the above detailed estimates of construction:



CINCINNATI AND HER RAILROADS.

A correspondent of the *Gazette*, in their issue of the 21st inst, undertakes to berate the entire press of the city, but especially the *RAILROAD RECORD*, for advocating works of improvement that are almost universally admitted as necessary to the continued growth and prosperity of the city.

The *Gazette* correspondent after enumerating the facilities for getting away from Cincinnati, remarks, “Surely, we are not very much hemmed in, or penned out, from the balance of the country.” If we expect to do all the trading that is to be done with ourselves, or confine our circuit for trade between the Miamis, he is perhaps correct. But a large city can not thus be sustained; it must draw its supplies from, and send its merchandise and manufactures to, distant points. Indeed, the greater the extent of territory that can be rendered

tributary to her traffic, the more extensive and profitable will be her resources, income and wealth.

The *Gazette* correspondent does not appear to observe that notwithstanding we have as he claims, “our river,” “our canal,” “the Little Miami,” “the Marietta & Cincinnati,” and “Hamilton & Dayton roads,” also “two railroads leading directly to the North,” yet, the routes leading to the great Eastern centers of trade have built side tracks and cut-offs around the city so that the natural trade of Cincinnati, by long through lines of transit is drawn to other points. We have become in fact, switched off, and are almost as much isolated as if the city was built upon an island, so far as through traffic is concerned. Indeed, freights from New York to Indianapolis are less than from New York to Cincinnati. This gives an advantage against our wholesale dealers that they can fully appreciate. These cut-offs

would probably not have been constructed, and the traffic of the city thus flanked, if a broad and comprehensive policy with a comparatively limited expenditure had been adopted ten or twelve years ago relative to traffic through the city. But these cut-offs are now made, and our “Little Miami,” “our Marietta” and our “Hamilton & Dayton” are correspondingly crippled by the loss of business, and to make dividends on their stocks necessarily have to levy higher tariffs on their traffic—and then they don’t pay.

In addition to this, there is the drayman’s tax, and the bore of an omnibus ride, with the almost certain result of missing connection, all combining to drive both passengers and goods traffic around Cincinnati instead of through it. Does this need no remedy? We have suggested it, time and time again, and this week again furnish an elaborate article on the “Through connection and Central Depot,” with the design of doing something

to strengthen our railroads, turn the tide of traffic *through* the city, and again put our city in the position to *command* the commerce and traffic of the West.

The *correspondent* admits that "all agree, however, that we need one more principal line, and must have it before long. The road from Lexington to Knoxville and Chattanooga." This is really candid, but he kicks it all over by asserting "we question whether the present is the proper time to urge the measure." We will refute this fossiliferous idea by an extract from the editorial columns of the *Gazette* of the 22nd, in which the writer is reviewing this position of their correspondent. The *Gazette* says:

"We are neither going backward nor standing still. But at the same time it is not to be denied that we are just now laboring under disadvantages. The rapid growth of the country has increased competition, and this renders necessary new improvements, on our part. If other places, as regards new lines of communication, had been standing still, we might stand still without losing ground relatively; but as other places have been stretching out their iron arms around us, and tapping sections of country which nature has made tributary to Cincinnati, we can not stand still without relatively falling behind. This is a fact which no amount of talking or writing can dispose of. It is one of those stubborn facts, the effect of which is every day experienced.

A merchant of Georgia, for example, purchased a bill of goods, last week, in this market, the freight on which was nearly double the charges from New York via the seaboard route. This is an argument that every merchant understands, and which can not be explained away. We must meet it; and there is only one way to do this, and that is to build the Southern Railroad. With this in operation, the shortest route between New York and the interior of the Gulf States would lie *through Cincinnati*. We should then not be compelled to listen to the unpleasant statement that freights from this city to Georgia were higher than from New York."

The vast territory that would become tributary to the trade of Cincinnati by the construction of the direct Southern Railroad, with arms resting on Knoxville, Chattanooga and Nashville, would include all Central Southern Kentucky, East Tennessee, Western North Carolina, Western South Carolina, nearly all of Georgia, a portion of Florida, all of Alabama and a large portion of Mississippi. Surely this is worth something! The above territory comprises the best cotton and agricultural districts of the South, as well as the vast pastoral and mineral regions of the central ranges that divide the waters of the Atlantic from those of the Gulf of Mexico. To Cincinnati this vast section has been looking for years, but in vain! Shall it still continue?

There is a trade which neither the *Gazette* nor its *correspondent* have apparently any just conception of,—that is the *through traffic* as well as the immense market for way trade to be created by the Pacific Railroads. True, but little is to be expected from the Cen-

tral or Omaha route, nothing indeed. Yet there are other routes in which Cincinnati has a direct interest—the Kansas road and the Pacific & Atlantic, running through South-west Missouri. Small as our interest in these may appear, it will become "beautifully less" if measures are not taken to accommodate and facilitate this traffic without subjecting it to the onerous tax and obstructions above alluded to, which only can be done by a Tunnel under the city, and the construction of a Grand Central Depot.

Again, as to the importance of more routes to the East. Suppose we admit for a moment that we have enough, but by the construction of another shorter, with lower gradients to the seaboard, freight can be delivered at tide water for one-half the present cost, let us ask what effect that would have on the traffic of Cincinnati? We refer now to the Chesapeake & Ohio Railroad. Mr. H. C. Lord stated distinctly at a meeting at the Merchants' Exchange, in effect "that if all the statements relating to this route were correct, that if he had the control of the route he would guarantee to turn a tide of traffic over it that now did not come to Cincinnati at all, that would fully occupy the capacity of the road, at very remunerative rates." Besides, that region traversed by this route is rich with coal, iron and other mineral resources, and would be a source of supply of raw material for our manufactories, while it would open up a vast interior market for our manufactured goods. The time has now come for its completion.

Finally, as to the road leading directly to the North, that we have been advocating during the last few weeks, and did advocate twelve or fifteen years ago—the "Cincinnati, Lansing & Mackinaw Railroad"—it runs through the western tier of counties of the State of Ohio, that are practically as far from Cincinnati as they are from Buffalo, without railroad facilities or means of communication with the commercial metropolis of the State, and a new and varied trade would be brought to the city by this route, penetrating into and through the lumber regions of Michigan, having a land grant aid and local contributions sufficient to ensure its speedy construction. The only open question is, how shall it come into the city; must it come in on an independent line, forming a new, and in our opinion, much needed, outlet to the commerce of the city through the Tunnel & Short Line route, or must it remain forever tributary and dependent on the courtesy of the already over crowded lines? We think no one unbiased by prejudice or interest but will decide in favor of the first problem.

STEEL HEADED RAILS.—The Pennsylvania Iron Works, at Danville, Pa., under the management of M. S. Ridgeway, Esq., have, after numerous experiments, at last succeeded in the manufacture of the steel headed rails for railroads.

LABOR: ITS VALUE AND RESULTS.

There is a great deal said about labor now a days, and many plans formed for its improvement for the working-man. It is not our purpose to discuss those plans. Of most of them it may be said, that the preliminary fact is the old proverb "*you can not eat your pudding and have it too.*"

The laborer, merely as such, enters the labor market to sell his labor, and nothing is clearer, than that he can not sell his labor higher than its really productive value. If he proposes to cut off part of it for his own improvement or amusement, he has a right to do it; but it is certain, that the remainder is not worth as much as the whole was; and, it is equally certain, that the consumers (who are at last the payers) will not pay as much for half a days' labor as they do for the whole. The end of the whole scheme, and discussion about hours of labor, comes to this, that labor will bring just as much, and no more, *as it is worth in relation to the other products of society*. For example, go into a great iron factory and we find half a dozen different kinds of labor, and we find one class of laborers paid four times as much as another kind. Why? Because the first, although nothing but a laborer, has acquired a certain skill in the use of his arms; as, for example, the men who handle the rolled iron, and draw it through the forge. Now, it is impossible to place these men on a level, because they are laborers, and so it is impossible to say what hours they shall labor, or when, because some factories are in operation all the time.

To say that laborers shall work only so many hours, and receive the same pay as if they worked more, is simply to regulate the price of labor by law, which has failed ever since the world began; and must fail, because the higher law of nature is stronger than that of man. But, we are wandering into a discussion we do not mean to engage in.

The subject comes up to us in consequence of certain queries sent by the Department of the Interior to the Boards of Trade, and others, in relation to the value of labor. One of these questions is "what is the aggregate annual value of the unskilled labor expended in Ohio, on the production of raw material, in such branches of business as agriculture, mining, fisheries, &c.?" It seems to us a very strange way of doing business in this Government of ours, to expect gentlemen in trade or profession, to sit down and employ their time in answering the most difficult of economic questions, without any compensation! There are but few men in the world can answer them, and they only by much labor and research. The fact is, our Government is going on in a very hap-hazard sort of way, in regard to all questions of finance, political economy,

statistics or science of any kind. The officers of the army are the only men educated to their business, and they only to the military art. The above question is accompanied by half a dozen others of similar nature, all of which can be answered, but which takes a statistician and much clerical labor to do properly. Some little insight into the matter we can give the readers of the RECORD; but only a little part.

The question refers to the value of unskilled labor applied to the production of raw material. This does not apply to the secondary manufactures from the raw material. In fact, it does not apply to manufactures at all, but simply the production of raw materials.

Here arises a question, on the threshold, which is one of many. Is the farmer, or owner of the soil, a skilled or unskilled laborer? We presume, that the whole class of farmers, or farm laborers in our country, and as enumerated in the census, should be called unskilled, because none of the simple labor of a farm requires skill, in the sense generally used. If we want the value of farm labor then, we should take the whole value of farm products in a given season (an ascertainable quantity) and take from it a reasonable rent for the land, and the remainder will be the value of labor put on those products.

For the present, and as sufficiently accurate for our purpose, we will assume the statistics of the United States, for 1860, as true. They give the value of farms, &c., thus:

Cash value of Farms in Ohio.....	\$678,132,991
" " Farming Imple-ments.....	17,538,832
Cash value of Live Stock.....	\$0,384,819

Total value of Farm Property.....\$776,056,642

In the Reports of the Commissioner of Statistics for the State of Ohio, we find that the value (gold value) of all the products of lands and agriculture in Ohio, for 1857, was \$132,700,000. In ten years this State increases 20 per cent., and we should add this on to the value of all products, and then, on that aggregate add 40 per cent. for the difference between gold and paper, and we shall have the present approximate value of the products of agriculture:

In 1857.....	\$132,700,000
Add 20 per cent.	26,540,000

Total.....	159,240,000
Add 40 per cent.....	63,696,000

Aggregate value of all Agricultural Products.....\$222,936,000

Now, let us see, how many agricultural laborers there are.

In 1860, the U. S census returned the following facts:

Farmers.....	223,485
Farm Laborers.....	76,484

Aggregate.....299,969

There has been but little addition to farm laborers; most of the increase of population

being in towns. On our hypothesis, all this class are producers of the raw material; and of these producers there are 300,000. Now, we have the elements of solving the labor problem:

Whole value of Products.....	\$222,936,000
Deduct Interest on Capital at 10 per cent.....	77,000,000

Value of Labor producing Raw Material\$145,936,000

Now, if we divide one hundred and forty-five millions of dollars among 300,000 men working 300 days in the year we have (\$1.62) one dollar and sixty-two cents per day as the price of farm labor. This is only 12 cents per day over the common price of day laborers at this time, and proves the accuracy of the calculation by that fact; for "harvest hands" as they are called, employed a few weeks in summer, are double the price of common laborers.

In 1857 the value of "farm labor" per day was \$1.00. The value we have now arrived at is 60 per cent. in advance; but, it is well known, that the price of many articles used in families has advanced 100 per cent.; so that on the whole the advance in the price of labor is not equal to the advance in the price of other things. It is true, that the value of farm labor, when hired by the year, is not so much; but, on the other hand, there enters into all farms a certain amount of skill, as in the training of stock, which is paid for out of the enhanced price of stock and meats.

Taken at wholesale, the above calculation is as near the truth as we can arrive. It will be observed, that the interest on the capital in farming is put at 10 per cent., which may seem high; but we have made the calculation several times and find it correct. Those who doubt it, forget entirely that the farmer gets his rent, his garden, his fuel, &c., independent of the value of all his products.

In conclusion, we must say that the Government asks some very interesting and valuable questions, if answered correctly; but to get them answered correctly, they must employ persons who understand statistics, and compensate them for their services.

The *Toronto Globe* says that the railways under contract in the Lower Provinces seem to be making good progress. A great deal of grading on the Western Extension Road, that which is to connect St. John with Bangor, Me., has been done, and some of the iron to be used been brought forward. The work on the Fredericton branch has been pushed forward quite as rapidly as upon the main line, and it is promised that some parts of the line will be ready for the regular trains by the first of November. The Eastern Extension Railway is approaching completion, and over a portion of it trains may be run next month. This piece of road connects the St. John and Shediac Road with the Nova Scotia boundary, and is properly situated to form a link in the Intercolonial Railway.

Spirit of the Press.

The *Commoner* of last week, gives three railroad articles touching the interests of our City.

We copy from one of them the following:

OUR RAILROADS.

We take so deep an interest in the immediate railroad connection between the two great systems of railroads, that we give a hearing to-day to a good deal of matter on that subject, principally copied from, and suggested by that able advocate of such improvements, the *RAILROAD RECORD* of this city. The citizens of Cincinnati have no greater material interest at stake than their railroad position. It is now not what it should be by any means. We have gone wrong from the very beginning to the end. We have given pecuniary aid to our lateral roads, but have neglected the tap root of the city, the Southern connection.

The cities on both sides of us and especially the great capitals of the Atlantic shore were the most interested parties in all the lateral roads.

They were the highways to their markets. Boston knew this and expended over fifty millions in pushing her railroad system into the interior. New York expended a much heavier sum for the same purpose. So did Philadelphia and Baltimore.

There was no necessity of Cincinnati to do much to help rich Eastern capitals in reaching out for our trade. But that was what we did. We taxed and borrowed, and borrowed and taxed to build up the roads on our own parallel. But the thing to do we neglected. We should have known that our subscription to the roads before mentioned, would have carried a great central trunk line right down South from Cincinnati to the Gulf and the Atlantic. Lloyd's railroad map which is black with railway tracks and intersections, in almost every other part shows a white surface—almost a blank just beneath us down to the Virginia and East Tennessee road running Southwest and Northeast. By tapping that, we at once unite the whole railroad system of the Union. We have not done it yet. We ought to do it now, and it is probable that we will do it before any very distant day. It is worth to this city millions of money, for the most remunerative and busy roads are those which cross latitudes. It is worth an immense amount to us socially, because we are bound together by ties of kinship, as well as friendly feeling. Politically, if it had been done in time, say twenty years ago, it would have drawn the West and South into bonds which could not have been easily dissolved.

The right spirit seems to be on foot in the last few weeks. We will live to enjoy the direct and indirect railroad contact of the whole country by tracks laid across the Mississippi Valley North and South.

The *Chronicle* of the 23d, takes the "bit in its teeth," and gives its readers the following well said, and complete article upon

OUR RAILROAD BRIDGE.

The people of Cincinnati have been so long talking in favor of Southern railroads without practical results, that they will probably be astonished when assured something is really being done to open the Southern market to our trade; that, in fact, a Southern railroad is being built, and that its completion may be

expected early in the spring. It is true the road runs by way of Louisville, but nevertheless it will be gratifying to our merchants to know that they can load their goods on cars on the Kentucky side of Cincinnati and have them delivered, without reshipment, at any of the principal points in the South. We can not, however, congratulate ourselves that this is the work of Cincinnati enterprise and capital, for we believe with one exception the stockholders and directors of the Cincinnati & Louisville Railroad are all non-residents of our city.

But we are to have the road, and it will doubtless be an important line of communication. Others, extending more directly south, will, within a few years, be built. The question then arises, how are we to avoid the immense tax on shippers which the necessity of draying freight across the river imposes? Upon a careful examination of this question, no one can fail to see the immense advantage of a railroad bridge across the Ohio. Such a bridge is going to be built. It is no longer a matter of uncertainty—thanks to the perseverance and energy of a few men who believe that there is a great future for our city. If we only seize hold of and improve the advantages our territorial position give us, this great enterprise will in a little while be an accomplished fact. The necessary funds have been subscribed, and preparations are being made to begin the work.

The exact location and some of the minor details have not certainly been agreed upon, but sufficient is known to give a good idea of it. The entire length of the bridge proper will be 1,800 feet—the main span across the channel of the river 400 feet in the clear between the piers at low water mark. This is the longest span of any truss bridge in the world, with one exception. (In the bridge across the strait of Menai there is a span of 420 feet in length.) The height of the main span will be 105 feet above low water mark—three feet higher than the suspension bridge. The width is not yet fully determined, but the intention is that it shall be great enough to allow a railroad track or tracks through the middle, and wagon and foot-ways on each side. The entire structure to be built of wrought iron, after the Keystone Bridge Company's patent, and will be the most elegant and complete thing of the kind in this or any other country. The total estimated expense is \$1,700,000, of which amount Eastern capitalists subscribe \$1,200,000.

The rates of toll to the companies desiring to cross it have already been fixed at 15 cents per ton for freight and 15 cents each for passengers. It now costs, to haul freight across the river to the railroad depot, 11 cents per 100 lbs, or \$2 20 per ton, and passengers 75 cents each. The saving to shippers on each ton of freight will be \$2 05, and to each passenger 60 cents. It is estimated from data believed to be reliable, that the Little Miami Railroad alone will send 2,000 tons of freight and 1,500 passengers per month over the bridge, while the Cincinnati & Louisville will send 3,000 tons of freight and 5,000 passengers. So that there will be saved to the shippers and travelers over these two lines alone the sum of \$177,000 per annum, or more than 10 per cent. on the entire cost of the bridge.

This is a snug little sum, but it falls short of the savings on the business of even these two roads with the advantages the bridge will give. But when our "Short Line" and Mackinac roads are built, drawing riches from the Northern lakes; when our direct routes to Nashville, and Chattanooga and Knoxville,

and Norfolk are completed, as sooner or later they will be, the figures that will then show the savings of the bridge would now be deemed fabulous. Indeed, without a railroad bridge across the Ohio, Cincinnati will soon be off all the main lines of travel and traffic—a city on a side track. The East and West are now communicating principally through Chicago, and Louisville is bidding high to become the principal point of communication between the North and the South, and perhaps after all, the greatest advantage of the bridge enterprise is the impetus it will give to other enterprises. It will demonstrate to all men about us, that we are fully awake and in earnest in the affairs of life. It will show confidence in ourselves, which will beget confidence in others, and will do more to perfect our lines of railroad communication than millions of dollars subscribed for that purpose; and in a few years our city will again be one of the highways of the nation and become what its territorial position indicates that it should be—the great distributing point of the North for the South, and of the South for the North. Let us cease, then, to throw obstacles in the way of those who are laboring for the success of this enterprise. Let us stop all selfish bickerings, and frowning down all manifestations of petty spite, encourage them in their good work, only asking them to build not only for the present, but to remember that there is a greater future beyond, and to build their structure so that it may be a fit link to the chain that is to bear the commerce of half the nation.

Chicago, Burlington and Quincy Railroad.

The report of the Directors of the Chicago, Burlington and Quincy Railroad for the fiscal year ending April 30, 1868, which was presented to the stockholders at the meeting last June, has just been published. The following abstract will give the most interesting facts in the report:

The earnings of the road have been—	
From Freight.....	\$4,216,911 36
From Passengers.....	1,482,506 92
Miscellaneous.....	455,228 97
Interest and Exchange.....	43,081 39
	<hr/>
	\$6,197,728 64

Ordinary operating expenses, taxes, etc.....\$3,475,877 65

The gross earnings of the road are, it will be observed, a little in excess of those of the year previous, which was unexpected, as the corn crop was nearly a failure, and its loss usually effects greatly the whole business of the road. The high prices of grain stimulated the producers to ship as much as possible, leaving small stocks on hand.

The number of cattle shipped was 26,000 less than the previous year, the number of hogs, 163,000 greater.

The receipts from passenger traffic were \$61,207.23 less than the year before, not quite so much as the increased revenue from freights.

The operation expenses have not varied materially from those of past years, having been, exclusive of taxes 49 83 100 per cent. of the gross earnings, and inclusive of taxes 53 7-100 per cent. and about one per cent. less than the same expenses during the prior year, evincing an economy in management equaled by that of very few railways in the country. Yet while there has been great economy used in attaining this result, the track of the road and all its appointments

have been fully kept up and it is believed that they were never in better condition than at the present time.

There have been relaid upwards of thirty-five miles of track with new or re-rolled iron, of which about three miles are steel rails. These last have been laid where they will be subject to the heaviest wear in order to test their quality and durability as compared with iron. The result thus far has not been such as to encourage the Board in the extended use of it in the ordinary track of the road. There has also been added about nine and a quarter miles of side or double track during the year, and an additional amount of continuous double track from Mendota eastward is now being put down. Several of the bridges have been rebuilt with iron superstructures resting upon stone foundations. A very short period will now elapse before there will be no bridge except of iron, but little affected by decay and not subject to destruction by fire. About sixty miles of road have been ballasted with stone or gravel. There remains perhaps thirty-three miles between Galesburg and Quincy, and about thirty between Galesburg and Burlington yet to be done.

Thirty-one miles have been fenced, very nearly closing up that work, and on the main lines entirely so. Mainly thoroughly covered with heavy ballasting and with its bridging mostly iron, the whole road-bed is rapidly assuming the most permanent form and will soon be subject to as little expense for maintenance as is possible in this country unless it shall be found to be good economy to substitute steel entirely for iron in the track, of which the board is not yet satisfied.

It has been necessary to acquire, at Aurora, additional land for the enlargement of the machine and car works at that place.

The equipment of the road has been somewhat enlarged during the year. Three new locomotives, six new passenger coaches, two new baggage and express cars, and one hundred and eighty-five freight and way cars have been added to the machinery and rolling stock. There are now upon the road one hundred and twenty-two locomotives, fifty-five passenger cars, thirty baggage, mail and express cars, one thousand eight hundred and seventeen house, freight and cattle cars, five hundred and five platform and coal cars, forty-nine drovers' cars, and other equipment required in the repairs and maintenance of the road.

Since the date of the last report the important work of bridging the Mississippi, both at Burlington and Quincy, has been mainly done and the bridges at both points will soon be ready for use.

The capital stock of the Company, which stood at the date of the last annual report at \$10,399,010, has been increased by a distribution to represent the surplus standing to the credit of income account of twenty per cent. of stock to the stockholders, amounting to 2,079,800 and by conversion of bonds (convertible amounting to \$44,000, and by fractional stock dividend, \$21,220. The present capital stock of the Company now therefore stands at \$12,554,030.

Its funded debt and other liabilities created for the construction of the road and the purchase of the road from Galesburg to Quincy, including \$270,000 due on that purchase and not yet called for at the date of the last report, amounts to \$5,488,750. The whole aggregate capital stock and debt now therefore is \$18,032,780.

The local business of the Company, which is its most important and valuable business,

has been fully maintained the present as in the past years. Of the \$6,197,728.64 of its gross business, the amount contributed to it by business passing over it to and from the Hannibal and St. Joseph Railroad has been \$607,597.90, and the amount contributed by the like business with the Burlington and Missouri River Railroad has been \$391,069.50, both together being in amount \$998,667.40, being something less than one-sixth of the aggregate business of this Company.

The through business is rapidly increasing as the western connections are extended. The roads west of the Mississippi contributed about a million to the income of the road, and the net revenue is increased about a half million thereby. It is estimated that the business coming from the Hannibal and St. Joseph Railroad will soon amount to more than a million. The Burlington and Missouri road was extended fifty miles during the year. The business contributed to it was increased about \$23,000 during that time. It will soon furnish a connection with the Union Pacific Railroad as good as any other road will possess, besides giving the trade of a rich country for 300 miles.

Since last year, by authority of the stockholders, this Company has entered into arrangements to aid that company for the farther amount of \$1,200,000, to extend its line across the States. The aid to be rendered is only an annual subsidy from a fund created for a short term of years. At its termination the Chicago, Burlington and Quincy Railroad Company will be the large majority owner in the stock of that Company, and will have secured a connection which it is not unreasonable to believe will soon contribute from a half million and upwards to the net profits of this Company.

The arrangements made with the Toledo, Wabash and Western for the joint use of the track of this Company for about twenty-two miles from Quincy are working well, and it is hoped will result in the friendly, at least not hostile, rivalry of the two companies. During the year coming there will be completed probably a line of road from Peoria (in connection with the road extending eastward from Peoria to Logansport,) to Keokuk, crossing the line of this Company at Canton, on the Lewistown Branch, and at Bushnell on the Quincy main line. This road it is reasonable to suppose will, to some extent, divide with that of this company the business of that section of country through which it will run. It may, also, if not wisely conducted, somewhat affect the prices of the business by the competition which will be introduced.

The total cost of the 400 miles of road, and equipments has been \$17,982.09.

Of the operating expenses 22 per cent. was for repairs of track; 13 per cent. for repairs of cars; 12 per cent. for repairs of locomotives; 23½ per cent. for train, engine and station service, and 9½ per cent. for fuel.

The report of the Superintendent, Robert Harris, shows that the cost of the new locomotives on the road has been about \$14,500 each, and of the new passenger coaches, which are among the finest ever built about \$8,000.

C. F. Jauriet, the Master of Machinery, reports the number of miles run during the year at 2,648,554; 710,560 by passenger trains, 1,225,100 by freight trains, and 712,894 by miscellaneous trains. Nearly 6,000 cords of wood were consumed, and more than 63,000 tons of coal.

The Freight Auditor, W. McCredie, reports that 1,017,166,793 pounds of freight were car-

ried eastward, and 857,812,247 westward over the road.

The railroad, while maintaining its track and equipments in perfect condition, scarcely equaled by any western road, yet keeps its operating expenses at less than one-half of its gross earnings—a result which few American roads have attained.

Erie and Atlantic and Great Western Railways.

Writers for the press, feeling obliged to assume that nothing could exist of which they were ignorant, have insisted with a laughable persistency in denying that movements were on foot for the union, combination or consolidation of the fortunes of the two broad gauge railways in this country, the Erie and the Atlantic and Great Western.

That such is the case is unquestionable. The movement undoubtedly comes from a part, the active and influential part, of those concerned in the latter enterprise.

The Atlantic and Great Western Railway, from the first, ever since it was put in presentable shape by the genius of Samuel Hallett, has been a heavy enterprise. The vigor of Mr. McHenry and Sir Morton Peto carried it in the London market, and the money was had to finish the railway, after a fashion, or at least to get its miles of line in operation.

The Atlantic and Great Western, must rely on its terminal connections for business. These, so far as the West is concerned, have been cut off by the change of gauge of the Ohio and Mississippi. At the East, this railway makes connection with the Erie—not a thrifty consort, which, absorbed in Wall street or fortified in Jersey City, has been free to laugh at the distresses of its rural ally.

The Receiver's year, to make the best of which is the evident attempt in England, has painted on the wall for weal or woe the destinies of the Atlantic and Great Western.

In despair of making profits on the line of its road, why not, emulating Erie, launch itself in Wall street, Wall street and London—a grand Erie and Great Western combination, with infinite shares and vast capacity for "fluctuation."

Meantime Erie must do something. A great concern like that, which pays no dividend, grows heavier and more costly year by year. Its policy and its morals deteriorate, and by and by there must be a crisis. To avert the inevitable is the struggle which Erie, like a sinful man, has ever before it. It can "postpone for a while with such London help as is represented in the Atlantic and Great Western. The combination, from this point of view, is likely.

At certain seasons travellers, despite the warnings of their guides, will insist on clambering to the very edge of the crater of Vesuvius. Mr. Vanderbilt, who has very firm nerves, has attempted something very like this during last year. He got up where he could look over into Erie. He was glad to escape, leaving behind 50,000 shares. What were those, compared with life? He descended to the smiling plains below where lay outstretched the pretty panorama in which Harlem and Hudson River and Central were pleasing features.—*N. Y. Stockholder*.

The *St. John Telegraph* says that work upon the Intercolonial Railway will be commenced at three places, Riviere du Loup, Metapedia and Truro, on the Nova Scotia boundary.

Steel Capped Rails.

We have from time to time printed accounts of different devices for steel capped rails, the results of which it is claimed in every case are every way successful; but the efforts in this direction are by no means closed, for we are having from day to day, new accounts of novel methods for securing compound steel and iron rails, the effort being to produce a rail with wearing qualities equal to the solid steel, while the cost shall not much exceed that of a good iron rail. Mr. Peter Ashcroft, the engineer of the South Eastern Railway, of England, claims great success for an invention of his in which he uses a small quantity of steel in the center of the rail for the tread to run upon. He introduces between a pair of iron plates a steel rail, which fits in between the iron plates, the steel being tightly secured by screwing the iron plates up. The trains work only upon the steel and when it is necessary to renew it, it is done by simply unscrewing the iron plates, taking the old steel rail out, and putting a new one in. Although it is claimed that this rail is working extremely well on the Charing-cross line, yet it is open to the objection that practice found the compound continuous iron rail to have: that the screws work loose very easily and required very close attention to keep them in place, the same trouble that is found in the iron fish-plates. Another device called the Duplex Steel and Iron Rail, invented by Mr. J. L. Booth, of Rochester, N. Y., has been on trial on the New York Central and Lake Shore Roads for the past eighteen months, and as claimed with successful results. A Rochester paper thus describes the device: "Mr. Booth's rail is nearly in the form of a common T rail. The bottom, upright standard and a small head is made of iron; over this head is laid a cap or treadpiece of steel, which forms the face of the rail, and is held in its place by clenching the head under on either side. These steel caps are rolled into place when the iron rail is cold, and are as firm as though the rail was one solid piece instead of two. If the caps are laid loosely upon the rail, experiment has demonstrated that the tread of the car wheels will in a short time make them tight. The bars are put into acid and the scale removed before they are put together. The ends are then ground and made true, thus producing a finished rail." It is stated after eighteen months' wear in the Central track, in an exposed condition, these rails are now apparently as perfect as when first laid, while the iron rails laid alongside of them have been four times renewed. Mr. Booth is now making a quantity of these rails to fill a contract for the Central Company, the managers seeming to be satisfied with its success. These rails cost about fifty per cent. more than a first-class iron rail, showing quite a saving in first cost over those of solid steel."—*American Railway Times*.

In view of the numerous new devices for manufacturing iron and for converting iron into steel, and the laborious efforts which are constantly being made in this country and in Europe to devise still more economical and effective methods for manufacturing steel, it would not be at all surprising if, after existing patents expire, the price of steel should be so much reduced as to render it not only universally available for railway purposes, but for nearly all the uses to which iron is now applied.—*Mining Register*.

The sooner the better.

Odd Inventions and Discoveries.

The ponderous mind of the Middle Ages succeeding to the light and graceful taste of the classic times which in their turn followed the massive Babylonian and Egyptian period, and were heavy only in walls, aqueducts and causeways, when it invented and gave us very solid substantial things. Its coaches, its type and printing presses, its arquebuses and its cannon, all new things, were of the most colossal proportions and overpowering weight. One has only to glance at the drawings and pictures of such objects dating back a few centuries in order to be taken aback by the expenditure of material visible in their construction.

The first subsequent note of improvement was to lighten as well as to simplify, and, age by age, and year by year, as we have progressed, the chief aim of the inventor has been to combine moderate weight and delicacy with strength. Thus, our cotton gins and steam engines are much lighter to-day than some side boards and clothes presses were in the fifteenth century.

As the taste of our ancestors ran toward bulky and ponderous articles, so did it take to heavy uses as the objects of invention, and the more graceful and delicate points were omitted.

At the present day the rule is completely reversed. We still are able to put together huge structures of every kind on both land and water, and the Great Eastern steamship and the Palace of the Universal Exposition are striking proofs of that fact, but even they are not so vastly constructed as they would have been for the same purposes at an earlier day. Yet our forte is in the multiplicity and variety of the delicate discoveries to facilitate and better every minor operation of life. The minute work of the spinning jenny and the steam-loom whose iron fingers work with the rapidity of lightning and the precision of human intelligence; the intricacies of the ready reckoner, and the wonderful transpositions of electrotyping and photography—such, among scores that we might name, are the directions taken by the inventive genius of our time.

This we find to be an important feature of our civilization, since it shows that we have reached a stage where every little want of our earthly existence claims to be recognized, and finds some one to give it a hearing. Thus, progress and the emancipation of man from sordid labor and a thousand minor drawbacks that embitter his lot, are secured in a sense of completeness that omits nothing to make the ultimate attainment perfect.

It may sound like a little thing when we are told that a method has been invented by which honey can be separated from the honey-comb so deftly, that the cells are left almost uninjured, and can be reoccupied by the bees, but when we come to sum up the immense industry directly affected by this saving, the matter grows vastly in importance.

When paper collars and cuffs were first invented they excited only general merriment, but emerging from the ordeals of a trial "to see what they were like," they have become a merchandise in which millions of dollars were invested and realized. Now a still odder substitute for tidiness is suggested to be manufactured from the wooden strips exactly similar to those with which walls are lined instead of the old-fashioned paper.

White candles from bitumen; exquisite colors and even delicious champagne from petroleum; India rubber pavements; ivory

from chemically treated turnips; absorbent stucco work from potatoes and melon rinds; artificial sponges from prepared bread crumbs are no less curious than useful things, and they and the long line of endeavor that they represent, indicate a constant effort to alleviate the expense and annoyance of all the little as well as the heavier operations of life whose convenience was overlooked in earlier days.

And, as we look around, are we not amazed at the tardiness with which this line of invention has been taken up. We now see a positively wonderful array of applications, it is true, but what are they compared with the wants to meet them? Our streets still roar and reek with the barbarous noise and filth of horse power; our homes are made pestiferous with wretched drains and sewers: our eyes are destroyed by flickering and inadequate light after sundown; our systems are disorganized and infected by ill-prepared food. On all sides cleanliness, quiet, digestion, shelter and locomotion are calling for still fresh devices to relieve us from thronging dangers and discomforts. Therefore let us have still more things in the way of invention, no matter how "outlandish" they may seem at the start, if they but discharge the office. The more the merrier. All great hits that have been made in the world were "queer things" to the hang-backs of mankind, and, generally, the queerer they seemed when first announced the greater the benefaction proved to struggling mortals.—*New York Mercantile Journal.*

SIZE OF THE STARS.—How large are the stars, and are they alike, or do they differ in size? It used to be conjectured that they are of somewhat similar magnitude, presumably about as great as our sun, and that the differences of apparent size are due to differences of distance; but when astronomers came to discover that some of the smaller stars are the nearest to our system, this idea fell to the ground. A German computer has now, however, calculated the actual dimensions of one particular star, and finds that its mass is rather more than three times that of the sun. The star in question is of less than the fourth magnitude—a comparatively small one. What then, must be the size of those of the Sirius and Aldebaran class! The reason of its selection for this determination was, that it is one of the components of what is called a binary system—two stars revolving about each other like sun and planet—and the motions of the members of such a system afford data for the computation. The star's distance from us is a million and a quarter times that of the earth from the sun, so that light takes twenty years to travel hither from it.—*Once a Week.*

ROSECRANS' SOUTHERN VISIT.—There is an explanation given by General Rosecrans' friends, of his visit to the Virginia Springs, which relieves it of any political character, except that he has doubtless talked freely about the political situation. Rosecrans is the representative of a large and influential company of capitalists interested in the railroad to the Pacific along a portion of our Mexican border, and with some grants in Northern Mexico. Between twenty five and thirty of the leading Southern railroad men are now at these springs, and others are on their way there. Their consultation has reference to a Southern Pacific Railroad. Several of the leading ex-rebel officers present are railroad Presidents.

THE RESURRECTION PLANT.—This is one of the latest curiosities in the plant line. We obtained one of Mr. Vick, of Rochester, last spring, and it then resembled a bunch four or five inches in diameter of curled up shoots of young cedar, with a small cluster of thread-like roots depending from the bottom. Placing it in a saucer of water the bunch unrolled in a few hours, spreading out quite flat, and presented somewhat the appearance of a heavy patch of moss. In this state it remained two or three weeks. If the supply of moisture failed for a time the plant gave warning by assuming its regular ball like form. At the end of that time we transplanted it to the ground, and it looked fine and green under the influence of genial showers. But the weather grew dry and the Resurrection Plant rolled itself into a ball and rolled away before the wind, the roots not having much grasp on the soil. It lay in the sun on the ground for a month, when we gave it to a friend who placed it in a saucer of water, and lo, it spread out its arms again and showed the green color of vegetable life. An exchange thus speaks of this singular plant:

"These plants are brought from the southern part of Mexico. During the rainy season they flourish luxuriantly, but when the dry weather and hot sun scorch the earth, they, too, dry and curl up, and blow about at the mercy of the wind. To all appearance they are as dead as the 'brown and sere leaf,' but as soon as the rain comes again the roots suck up the water, the leaves unfold and assume a beautiful emerald green appearance. No matter where the plant may be, on a rock, a tree, or a house top, wherever the winds have blown it, there it rests, and being a true temperance plant, it only asks for water, and at once bursts into new life. Having purchased one of these tufts, and placed it in a soup plate filled with water, the reader will be surprised to see it gradually unfold and take on a deep green. The leaves are arranged spirally, and altogether, the resurrection plant is the latest curiosity."—*Rural New Yorker.*

ILLINOIS CENTRAL RAILROAD COMPANY'S LAND DEPARTMENT.—The extensive grant made by Congress in September, 1850, and ratified by the Illinois Legislature in February, 1851, embraced 2,595,000 acres of rich farming lands along the line of the proposed road, covering each alternate section for six miles on each side of the road. To dispose of this immense tract of over 4,054 square miles a separate department was organized, and from its operations have proceeded the funds needed to build the road through a wilderness for the opening up of which capitalists would long have hesitated to appropriate their means. The sales commenced in 1854, and up to the present time, the *Western Railway Gazette* says, they have amounted to 1,983,000 acres, leaving about 612,000 yet unsold. About 40,000 contracts have been issued; the actual number of purchasers or settlers is fully 50,000, and the proceeds have been nearly \$20,000,000. The land sells at from \$6 per acre upwards, and is still being rapidly taken up, so that a few years will probably dispense with the necessity of a separate department for their sale. The department now employs about 20 officers and clerks, and is a busy place, between 200 and 300 contracts and deeds being executed each month. The "construction lands," as they are called, are a portion of the grant set apart for the building of the road, and on them there was a debt of \$17,000,000, which has been reduced to less than \$7,000,000.—*U. S. R. & M. Register.*

WHAT INVENTION HAS DONE WITHIN A GENERATION—Pointing out the successful improvements and inventions made within a few years in ship building and rigging, in marine engines and other matters which have given a more effective value to the marine service, *Engineering* thus refers to improvements in railway matters:—"So with railways. We have been long familiar with them, yet it was but very lately that clever engineers argued that they never could be worked, underground, with frequent trains as for metropolitan traffic. It is hardly longer since it was maintained that there was no hope for coal burning locomotives. And who would admit, a few years ago, that continuous brakes, mechanically put on, could be worked on railway trains, or that mail bags could be caught at forty miles an hour, or that gas could be introduced into railway trains, or that communication between passengers and guards was both practicable and allowable, or that sleeping carriages could be made both comfortable and profitable, or that signals could be so arranged, as by Anderson's plan, made by Yardley, of Manchester, that mistakes were no longer possible. And as for locomotive and carriage details, how long were balanced slide valves, the *ignes fatui* of locomotive engineers; how long did it take to understand that Ramsbottom's mode of picking up water, just as it is wanted, is cheaper than carrying it about, eight or ten tons at a time, with a ten or twelve ton tender to hold it; how long to learn that condensed steam would certainly displace oil in the gravity or displacement lubricator, and how long will it take to learn that axleboxes lubricated with oil cause less friction than the dirty, troublesome, and extravagant grease pots now in use? It is only now that engineers are learning that locomotives can take a load up inclines of 1 in 10, and that bogie rolling stock is the easiest and safest of all. What a world of iteration it has taken to convince engineers that Richard's indicator is the only one fit to be used for high speeds, even up to 450 revolutions per minute; how long to instil into the minds of owners of steam power that Prony's friction brake, as improved by Appold, is the only true measure of power, as developed or consumed by machines having a circular motion? By and by the Canadian railway managers and engineers will be believed, and we shall use chilled cast iron instead of wrought iron wheels.

MIDLAND RAILROAD.—We are gratified at the progress making in the construction of this much needed road: 123 miles of the northern portion being now under contract, and nearly 40 miles graded. On Wednesday, at the directors' meeting at Middletown, the Middletown division was put under contract, including the branch to Ellenville and the Shawangunk tunnel at the Wurstown Gap. The contract for the tunnel was awarded to Hitchcock & Co., (who constructed most of the tunnels on the Baltimore and Ohio Railroad,) at \$4 per cubic yard, amounting, for a tunnel of 3,100 feet, to about \$200,000. The grading and masonry were awarded to Jackson & McDonald (the latter a member of the Canadian Parliament), at moderate prices. These gentlemen are known as excellent and experienced contractors; and we judge that the work will be pushed to an early and successful completion. For the heavy work through Delaware and Sullivan counties, the company will ask subscriptions from the merchants and capitalists of our city; and we trust their response will be liberal.—*Tribune*.

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

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Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

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Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, OCTOBER 1, 1868.

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Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	5:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveless Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express.....	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION.			
Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.	
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Jor Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

The Advantage and Necessity of Public Works for the Employment of Labor.

In our last, we discussed the amount and value of labor applied to the production of raw materials; but, we gave the result only in regard to agriculture. We shall now complete the analysis of labor in Ohio, applied to raw materials, and then consider the relation of labor to public works and manufactures.

Labor applied to Agriculture.....	\$145,000,000
" " Coal Mines.....	4,000,000
" " Iron Mines.....	3,000,000
" " Timber.....	1,000,000
" " Salt.....	500,000
" " Stone.....	500,000

Aggregate of Labor applied to
Raw Materials.....\$154,000,000

Now, we observe here, that the total value of labor applied to the production of coal, iron, salt, wood and stone only amounts to nine millions of dollars, while that applied to agriculture amounts to one hundred and forty-five millions. The result of this is, that in Ohio, surplus labor has small chance of employment when it leaves agriculture, and it is evident that it will have no better chance until manufactures and public works are increased and demand labor.

The first want of labor is not to regulate the hours of work, or force higher prices upon the employers; but, the first want of labor is to find employment. The man who is out of employment, (and thousands are) with no bread for himself or wife, becomes ridiculous if he won't work because he chooses to dictate hours and prices to those who would employ them.

The first want of labor, therefore, is to find employment which will get its daily bread. Now, we see, that in Ohio, when labor leaves agriculture it has small chance of employment. What will give it employment?

In answer to this, we say first, that this surplus labor, which can not be employed on agriculture, is constantly increasing, and constantly finding itself out of employment. Look a little at these facts:

1. The agricultural laborers are already too numerous, for we find scores of farmers emigrating to the West, and taking up new lands, in order to find profitable employment.

2. We find that the annual increase of people in Ohio is about two per cent. per annum, and as there are already 500,000 able bodied men in the State, the annual increase of laborers must be about 10,000. How are they to be employed? The census shows these facts, that the mere laborers (those not owning the soil) are as follows:

Farm Laborers.....	76,484
Common Laborers.....	78,523

Total Day Laborers.....155,007

Now, the largest number of annual deaths in this body is 4,000. If we were to allow the largest possible proportion for those who go

into skilled employments, it would not amount to more than 2,000. Deduct these 6,000, and you have 4,000 per annum, or 40,000 in ten years who are without employment of any sort. Our daily observation indicates that this is rather below than above the actual fact. Well, what is to be done with them? Heretofore they have moved to the West to find new lands, and new employment in building up towns, and railroads. But, an observer of our country, acquainted with its lands and resources, knows that the great body of the fertile land in the Mississippi Valley is already taken up. The towns of the West will continue to grow, but the lands will in a short time no longer be attainable at the cheap rates they have been. Where, then, are the great mass of unemployed laborers to go? Even to farmer's sons looking out for agricultural employments, will soon cease to find them, except where good lands are high. Where then are the 400,000 laborers who come forward each ten years, (for that is the number for the whole United States,) to find employment? We know how difficult it is now, when we see tens of thousands of able-bodied men going to the mountains and enduring hardships, for an employment which is less profitable than farming. What shall the surplus labor do? Unquestionably, we must go far more than we do into manufacturing. But at the present moment, the country needs far more than it has of public works—of railroads, of ocean steamers, of harbors, of ship canals, and of various State and Municipal works. Take, for example, railroads: There are now near 40,000 miles of railroads in this country, which have employed directly and indirectly, hundreds of thousands of laborers. If they had not been made, can the reader conceive, that we should have had such an immigration to this country as we have had? Or, can we suppose, that many of our own laborers would not have been destitute, or compelled to follow others to the distant mines? Well, suppose that the whole surface of the United States had half only of the proportional number of miles of railroad which the State of Ohio has, what would be the result? This country would have 120,000 miles of railroad! Now, taking the settled and unsettled parts of the country together, and it ought to have at least half as much, in proportion, as the State of Ohio has, and in time will have. Here, then, are 80,000 miles of railroad to be made, which will cost three thousand two hundred millions of dollars, all of which will be expended for the benefit of the laborers. But the Government is the owner of a vast quantity of the lands to be improved, and it will continue to be so for a century to come. Now, why should not the government employ a small portion of its annual income in this way? Take the Northern Pacific Railroad and the Southern Pacific Railroad, for example. Why should not the Government aid them? We should really

like to have the argument on that side. Have we less sense than the Governments of France, Germany or Russia? The demagogues of the day have got up an idea, that making the Pacific Railroads by Government aid is to take the land out of the market!! It is the only thing on earth which will put them *in market, and make them available to laborers*. We hold him, whoever he may be, to be not only ignorant, but the worst enemy of the interests of labor, who hates the laboring man, that the making of the Pacific Roads by Government aid, is an injury to the laboring man. Whoever else may gain or lose, the *laborer* is a gainer by every thing which furnishes employment, and which brings the wild land into market, and which never can be till railroads are made through the great wild interior.

Illinois South-eastern Railway.

The communication in another column from THOMAS S. RIDGWAY Esq., relative to a new railroad enterprise about to be constructed in Southern Illinois is full of interest to all observant and thinking business men of Cincinnati. The route of the proposed line is through a country well known as unsurpassed for agricultural purposes and a portion of it, rich in mineral resources. This section of Illinois is devoid of railroad facilities; the road is a real necessity, and will develop the country through which it passes, and we congratulate the movers in the enterprise on their shrewdness and prospects of success.

We, however, at the same time draw the attention of the grumbling *Cuto's*, and other "penny-wise and pound foolish" citizens of Cincinnati, as well as the shrewd, active and intelligent business men, to the effect that the completion of this road will have on the business interests of the city. This section will be practically, when the road is finished, nearer to Chicago than to Cincinnati; although its purchasing market has hitherto been Cincinnati. Goods are sold as cheap, and we think a little cheaper in Chicago than in Cincinnati; no one will question but that Chicago will make some exertion for the trade of its own state.

Further.—It will make Chicago practically as near the whole Southern market as Cincinnati will be if her direct Southern Railroad is completed, and with freights from New York to Chicago much lower than to Cincinnati, leaves but little question as to which city will have the advantages in trade. Shall we slumber on, and let others fence us in all around?

RAILROAD OPENING.—The formal opening of the St. Paul & Superior Railroad, as far as White Bear Lake, took place on the 10th instant.

Chesapeake & Ohio Railroad.

The people of Cincinnati have not yet realized the importance of this great artery of commerce; and indeed there are very few of our business men who pay any attention whatever to anything but the price of the goods they deal in. They do not stop a moment to consider the fact that there are other places where goods can be bought as well as in this city, and that the great Eastern markets are straining every nerve to lay all the territory possible tributary to their trade, by furnishing the means of easy access to their counters. They do not appear to watch or care about the movements of the great monster corporations, on the chess board of trade, how they are each moving and counter-moving to secure the traffic of States to the marts to which they each respectively point, and in whose interest they exclusively labor.

The real question is, can Cincinnati afford to stand by, idly look on and see the whole territory on all sides of her that has hitherto paid her tribute, tapped and drained by side roads and cut-offs, when a little foresight and a little exertion, would prevent it, and turn the tide of traffic to and through the city instead of past it.

We commend the following article from our very able correspondent, Judge NASH, to the careful and candid consideration of every business man and property holder of Cincinnati:—

GALLIPOLIS, Sept. 24, 1868.

MESSRS EDITORS:—I see a notice in your paper of the 17th inst., of the Chesapeake & Ohio Railroad. You seem to suppose that it is a matter of very little moment to Cincinnati, whether the line reaches the Ohio river at the mouth of the Great Kanawha or at the mouth of Big Sandy. In this particular, you are laboring under a great mistake. If you will look at any good map, you will see that Guyandotte, or Catletsburgh, is about fifty miles south of Cincinnati; that even the mouth of the Great Kanawha is some sixty miles south of Cincinnati. In passing, therefore, from the valley of the Kanawha into that of the Guyandotte, the line runs still further south instead of tending, as it ought, further north, as it does in following the valley of the Great Kanawha. Is it a wise policy for Cincinnati to drive this line so far south?

There is another matter to be considered: The line from Charleston to the mouth of the Big Sandy is being constructed, I am told, by the same men, who have bought up the Big Sandy & Lexington road, and is being pushed through at this time as a line to carry off the Chesapeake & Ohio road through Kentucky to Louisville and Memphis. It is for this reason that the Pennsylvania Central is seeking to extend a line from Ulrichsville to Marietta

and thence down the Ohio river by Pomeroy and Gallipolis to South Point, opposite the mouth of the Big Sandy. It will then be seen that the whole movement looks to a Southern connection, to a line running south of and around Cincinnati.

But you intimate that a connection can be made with this line at Guyandotte by means of a line from thence to Oak Hill at Portland on the Portsmouth branch of the Marietta & Cincinnati line. Distance in railroading is considered a matter of some importance. The distance from Scory, (the point where it is proposed to leave the valley of the Kanawha to go to Guyandotte,) to Hamden on the Marietta & Cincinnati line is about seventy miles. The distance from Guyandotte to the same point is not less than that, and the distance from Scory to Guyandotte is about thirty-six miles. The cost of making a road from Scory to Guyandotte will be greater than the cost of making one from Scory to Hamden by the direct line. I make this statement on the authority of Mr. Show, who was formerly chief engineer on the Virginia Central road, and who had gone over the whole ground. The absurdity of your suggestion of going to Guyandotte for a Cincinnati connection is thus apparent; besides it would cost more to make a line from Guyandotte to Portland than from Scory to Hamden by the direct line. This is one of the cheapest made lines in Ohio.

The point for bridging the Ohio is at Gallipolis island. The bottom of the river is rock on the Virginia side and bare at low water; and on the Ohio side is gravel. In constructing a bridge at this point, the pier foundations could be laid without working in water. The cost would be little in comparison with the Parkersburgh bridge. This is the best and cheapest point to bridge the Ohio any where above Cincinnati.

Had it not been for the policy of the Baltimore & Ohio Railroad Company in refusing to execute the contract made by Mr. Cutler for the branch from Hamden to Gallipolis and Pomeroy, we should now have seen a line in the process of construction from Charleston down the valley of the Kanawha, instead of the construction of the Kentucky, Louisville and Memphis branch, and by next July Cincinnati would have a railroad connection with the thirty thousand population between Racine, Meigs Co., and Gallipolis, and with Charleston and all that portion of Western Virginia. But the narrow and selfish policy of the Baltimore & Ohio road has defeated all this, and will continue to defeat this line just so long as it can be done. Meantime a leaven of the old slavery feeling exists in Eastern Virginia, which leads the people of Virginia still to seek this Kentucky and South-western connection. And yet the managers of the Chesapeake & Ohio line freely admit that a connection with Cincinnati, and St. Louis, and Chicago is just now of more im-

portance to their road than that with Kentucky. The truth is, that both lines are important, but the one just now most important is that to Cincinnati, and they so regard it. The President of the Chesapeake & Ohio line, therefore, promised Mr. Cutler last year, that they would at once make the line down the valley of the Kanawha, if he would construct his Gallipolis branch to meet this extension. The change in the management of the Marietta & Cincinnati road, by which it passed into the hands of the Baltimore & Ohio line, defeated the project of Mr. Cutler and forces the direction of the Chesapeake & Ohio line to seek this Kentucky connection.

Is it wise for Cincinnati to allow the selfish policy of the Baltimore & Ohio road to force this portion of Ohio to aid this project of the Pennsylvania Central road in order to secure a railroad outlet? This Pennsylvania line once made, and the *whole trade of this region will once more turn toward Philadelphia*, where it went thirty years ago. At present, most of it goes to Cincinnati, but this Pennsylvania line completed, and Philadelphia is as accessible to this region as Cincinnati will be. The object of the Baltimore & Ohio line is apparent; it is to *force* Cincinnati freight over their line; I say *force*, because if the Chesapeake & Ohio company has a direct line with Cincinnati, the Baltimore & Ohio road can not compete with it. I fearlessly assert that freight could be carried cheaper even to Baltimore over the long curves and easy grades of this line than over the Baltimore & Ohio road.

It is time for the people of Cincinnati to wake up to their own interests. This Pennsylvania Central has worked around Cincinnati on the north so as to secure immediate and direct communication with St. Louis and Louisville, and now by the project I have spoken of, it proposes to secure a similar and shorter and better connection with Louisville and Memphis on the south of Cincinnati, and in that way draw the trade of that great region away from your city and the Baltimore & Ohio Railroad, to which Cincinnati seems disposed to ally its commercial prosperity. This huge monopoly with its vast capital is stretching out its arms in every direction so as to reach freight in its home markets and in this way save all handling and commissions between Philadelphia and the producer. Cincinnati may by its manufactures hold its present position and continue slowly to increase. But Cincinnati must recollect that the iron business has reached a crisis, when it will seek its location among the ore and coal fields in this part of Ohio, and towns will grow up here, as Sheffield and Birmingham did in England. Fuel is becoming too expensive in Cincinnati not to make it the interest of capital to go where the iron and coal are, and thus save the cost of such heavy transportations.

But I have written more than I intended. I am anxious that our connection should be

kept up with Cincinnati, and not turned elsewhere by the indifference of her capitalists and the selfishness of the Baltimore & Ohio Railroad. Yours,

SIMEON NASH.

Illinois South-eastern Railway.

MESSRS EDITORS:—This is the name of a new railroad enterprise organized last winter, under a most favorable charter, to construct a railroad through South-eastern Illinois, commencing at Shawneetown on the Ohio river, and running north through the counties of Gallatin, White, Wayne and Clay, and connecting with the Chicago branch of the Illinois Central road at, or near Edgewood in Effingham County. This road is bound to be an important link in a great chain connecting the lakes of the North, with the Gulf and the South eastern States.

In the first place, it will open up and develop four of the richest and most productive counties in the Wabash Valley, with soil and climate adapted to the growth of every description of grain, grass and fruit—winter wheat of the best quality never fails there, and the same can be said of peaches and other fruits, both large and small, also tobacco, castor beans and many other products of Southern latitudes are grown successfully.

Another very important article of commerce would be the supplying of the prairie country of Northern Illinois with the hard timber, such as oak, ash, hickory and black walnut, which is very abundant, directly on the line through the three lower counties.

Again, South eastern Illinois is underlaid with one vast coal field, mines have been opened and are now worked profitably; also salt works recently established in Gallatin County turning out over 1,000 bas., per week, and there is a sufficient supply of salt water and cheap coal to make ten times that quantity weekly.

In connection with this enterprise, there was an excellent charter obtained last spring of the Kentucky Legislature, to construct a railroad from Shawneetown to Madisonville, Ky., only 37 miles distant, where it will connect with the Nashville road; and the counties of Union, Webster and Hopkins, stand pledged to build their short link in double quick time, the moment they are assured that the Illinois road will be built to the Ohio river.

There is a road now building from Springfield, the capitol of Illinois, south-east to Pana, which will be continued on in the same direction to connect with the "Illinois South-eastern Road" at Edgewood. Build these roads, and it opens up a direct route, or great highway of trade and travel from the South-eastern States via Nashville, crossing the Ohio river at Shawneetown and thence on-

ward North-west to the lakes, the Great West, and even California.

The Officers of the "Illinois South-eastern Railway Company," have been hard at work raising the means to build their road, and have secured \$600,000, in county bonds and lands, as a basis to commence operations. A survey has been made by a competent corps of engineers; the length of the line from Shawneetown to Edgewood is 94 miles—from Shawneetown to Flora 72 miles, where the "Ohio & Mississippi road" crosses, going east and west.

By this route the distance from Chicago via Shawneetown to Nashville, Tenn., is 110 miles shorter than via Cairo and Columbus.

Lands of the best quality are plenty and cheap along the line of this road.

The company have the survey, estimates, profile and maps ready for inspection, and are now prepared to talk to railroad builders and contractors.

Connection of Railroads—The Front Street Steam Railroad—Important Decision by Judge Cox.

COURT OF COMMON PLEAS.

P. Hinkle and others vs. The Ohio and Mississippi, the Little Miami, and the Storrs Township, New Richmond and Central Union Junction Railroad Companies. Judge Cox delivered an extended opinion in this case, of which we can find room only for an abstract. The plaintiffs are the owners of property on Front street, in this city. They apply for an injunction to restrain the defendants from laying a track on Front street, under authority granted to them by the City Council, in Nov., 1867. They aver that they have large manufacturing and will suffer great inconvenience in their business by reason of the track being laid; that access to their premises will be cut off; that great danger of fire to their property would result, and that the use by the companies of the street would be a practical exclusion of its use by them. They claim also that this use of the street by the railroad company was such a taking of private property as is contemplated by the 19th Section of Article 1 of the Constitution, which prescribes that where private property shall be taken for public use compensation therefor shall first be made in money.

WHETHER THE STORRS TOWNSHIP AND NEW RICHMOND RAILROAD HAS A VALID EXISTENCE.

The first point raised in argument, on the part of the plaintiffs, is, that the Storrs Township Railroad has no valid existence as a corporation, because of the uncertainty of the termini of the road. One of its termini is mentioned in the charter as "Storrs Township, Hamilton County," and the other, "the town of New Richmond, Clermont County." The Supreme Court has decided that where the termini was the line of the county, and the line of the road was located to run through several counties, with the choice of one or the other, through which the road might pass, the termini was too indefinite and uncertain; and this court was of opinion that there was good reason for that decision. The lines of our counties, in this State, run from fifteen to

thirty miles; and a terminus with the selection of such a long line for its points, would certainly be very indefinite. As a geographical fact, they knew that Storrs Township is a very small one; that the line of the township from which this road starts is less than a mile, and the terminus is thus reduced to a very short distance. The reason, therefore, which excludes the line of a company as having an indefinite terminus does not apply here.

THE OHIO AND MISSISSIPPI RAILWAY ENTITLED TO ACCEPT THE GRANT FROM THE CITY.

It is claimed, also, that the Ohio and Mississippi Railway, not being an Ohio corporation, is not such an incorporation as is authorized to take the grant which the city has given to construct this line; that after the sale of the road, by virtue of the decree of the United States Court, it had not complied with the law of 1861, in reference to the organization of railroad companies in Ohio; that if it was a corporation at all, it was only so as an Indiana corporation, and that a foreign corporation can exercise no right of eminent domain in this State.

The act of 1861 prescribes certain formalities which must be observed on the part of a company seeking to become an incorporation in this State. But Section 7 of that act prescribes also, that a corporation of another State possessing a railroad which is partly in such other State, and partly within this State, may exercise and enjoy in this State all its powers, privileges and franchises for the purpose of said railroad and its business, not inconsistent with the laws of this State and the provisions of this act.

The testimony in this case shows that this company had complied fully with the laws of Indiana, and the laws of that State prescribe that a copy of the act of incorporation filed with the Secretary of the State shall be taken as evidence in all cases where the existence of the corporation is called in question. This is, then, an Ohio corporation, and is entitled to exercise in this State the same franchises and powers which it might exercise in Indiana; and the Court is of opinion that the company had full authority under these several acts to accept this grant, if the city has the power to give it.

AUTHORITY TO MAKE RAILROAD APPENDAGES AND CONNECTIONS.

It is claimed also that the Little Miami Railroad has no authority to accept the grant and lay the track down, because it is extending the track of the company beyond the terminus prescribed in its charter. The charter of the railroad prescribes the terminus shall be the city of Cincinnati, at such points as shall be agreed upon between the City Council and the railroad company; and it is said that many years ago this company, by contract with the city, fixed a part of its terminus at its present depot, and that that point can not now be changed.

He (Judge Cox) did not regard this act as extending, in the sense of the law, the terminus of the road beyond its original point.

It was further contended by plaintiff that the laying of this track would be changing the location of the road, and that the Supreme Court had decided, in the case of Morehead, that the company could not change the location. He did not consider this either as changing the location. In the several acts of incorporation of the Little Miami Railroad, full authority is given to the company, whenever they deem it necessary for the purposes of their road, to lay side tracks and other ap-

pendages to the road to make connections with the other roads in the same county; and it seemed to him that this proposed track was nothing but an appendage or connection with another road, such as was fully contemplated by the various acts passed in relation to this corporation.

It is urged, also, that by virtue of the twelfth section of the general act of incorporation, the right of a municipal corporation to grant to a railroad company the use of its streets for a track, is confined to the original location of the road, and that after the location no subsequent right of way over any street will be granted. But this is not a location of the road. It is one of the contingencies provided for by the twelfth section—a location of part of the road. As that road grows, as its business grows, the appendages, the side tracks, the company deem necessary, from time to time, for the transaction of their business, are fully covered by this statute as parts of the road, to be located only when the company deem it necessary to locate them within the territory prescribed by the charter.

RIGHT OF THE CITY TO GRANT THE USE OF THE STREETS.

The main question now comes as to the right of the city to grant the use of the street for laying down a locomotive railroad without first making compensation to the owners of property abutting the street.

What are the rights of the city, and what are the rights of the property owners? The city owns the fee of the street, and is charged with the maintenance of it, and required to keep it free from nuisance and open for the benefit of the public. The whole fee conferred on the city is not such as to give her the absolute ownership of the street for any purpose whatever, but only for the purpose of easement, for the benefit of the general public and the owners of adjoining property. If diverted from that purpose, or by obstructions, the general public, or the owners of adjacent property are excluded, or their lawful easement in it is impaired, there can be no doubt that an injunction can be granted to restrain such use; and the question arises whether the laying of a railroad track on a public street where there is a concurrent use of the street to the public, the owner of private property and the railroad company, is a taking within the meaning of the constitution. The Court is of opinion that the meaning of the word "taking" is an appropriation by the corporation of the property to their exclusive use, so that they may control and regulate it, and, if necessary, have the absolute control over it.

But the grant made to this company to use the street for a railroad includes nothing more than the right to maintain in the highway, still occupied and controlled by the public as before, a structure adapted to the running of cars, and which does not exclude or seriously interfere with the original mode in which the highway was used, but simply adds another use in furtherance of the same general object. This was the language used by the Supreme Court in 14 O. S. R., in the case of the Cumminsville Railroad. The track of a street horse railroad does not differ materially from a locomotive railroad, except in size of iron, and the present case seemed to come fully under that opinion delivered in the Supreme Court.

This Court did not understand because a party uses a vehicle different from what was formerly used, or moves at a slower or faster pace, that this was such an additional burden as would destroy or impair the use of the

road. It must be such an additional burden as was not contemplated in the original use of the road. The Supreme Court has decided that the laying of a track for a street railroad is not an additional burden on the land, and that it does not exclude or seriously interfere with the original mode in which the highway was used; and this Court could not see how the laying of a track for a locomotive railroad would any more materially interfere with the original mode in which the highway was used.

USE OF THE STREET BY A LOCOMOTIVE.

It is claimed, however, that the use of the road by a locomotive is foreign to the original use, and will destroy the easement and rights the adjacent owner has in the premises. This was, however, a question of use, and is a matter that can be controlled so as not seriously to interfere with the rights of anybody. The city has made a contract with the company for the use of the street, and she seems to have had a reasonable view to the preservation of the rights of the general public in fixing the time of the running of the cars, that they should be drawn in the day by horses, and in the night may be drawn by locomotives; and, if the street is used in that way, and carefully used, with all the precaution a company having the power of steam under its control is bound to use, it did not appear to the Court that there would be any serious impairments of the easement to the public, and that the evils anticipated by the plaintiffs, existed rather in apprehensions which the actual state of facts would not justify. If it should turn out that the company abuses the privilege, then, as Judge Spencer stated in a case before him, the Court can restrain the company, keep them within the bounds of the contract, and compel them to use the road so as to interfere as little as possible with the rights of the general public, and the uses of the adjacent owners.

ALLEGED DANGER FROM FIRE.

It is averred that there is danger of fire to the manufacturing establishments on the street, from sparks flying from the locomotives. But the Court ventured to say that if these buildings were made fire-proof against fires from adjacent buildings on the square, they would be equally secure against danger from locomotives passing on the street.

BENEFITS TO BE EXPECTED FROM THE TRACK.

It was reasonable to suppose that the heavy business portions of the city would be benefited by this connecting track, and of immense accommodation to the business firms on the street, who, no doubt, upon reasonable terms with the company, could have side tracks laid to their own buildings. Still if the railroad should be a manifest injury to those parties, if they should suffer damage by reason of its being managed improperly, they would not be precluded, by the view now taken by the Court, from bringing suit for any damage they might sustain.

THE INJUNCTION REFUSED.

Finally, the Court was of opinion that the plaintiffs would not be entitled to compensation before the track was laid. If entitled to any it must be for actual damage sustained. The Court would also refuse to enjoin the defendants from completing their road, and would dissolve the injunction heretofore granted.

Hoadly, Jackson & Johnson for plaintiffs; T. C. Gazley and Judge Headington, contra.

The Cincinnati, South-western & Chattanooga Railroad.

On May 24, 1866, our Legislature incorporated a company to construct a railroad "from some suitable point on the South-western Railroad at or near Sparta, Tennessee, or at a point to be selected by said company, to pursue the most direct and practicable route to the terminus of the Jasper Branch Railroad, at Jasper, Tennessee." The charter vests the company "with all the rights, powers, privileges and franchises of the Nashville and Chattanooga Railroad Company," and gives to the company \$10,000 State aid.

The South-western Railroad Company is chartered to construct a road from Danville, Kentucky, to McMinnville, the terminus of a branch of the Nashville and Chattanooga Railroad, intersecting at Tullahoma, seventy-two miles from Nashville. From Danville to Sparta the South-western Road pursues a southern direction; from Sparta it deflects westward to McMinnville, and the McMinnville branch points back towards Nashville, bringing the line up at the Nashville and Chattanooga junction, something in the fish-hook shape, Tullahoma at the point of the hook. The Cincinnati, South-western and Chattanooga Company propose to keep straight on to Jasper, which is on an air line from Cincinnati through Danville. Jasper is connected with the Nashville and Chattanooga Road, at Bridgeport, Alabama, by a branch road 12 miles long, and from Jasper to Stevenson, Alabama—the junction of the Memphis and Charleston Road with the Nashville and Chattanooga Road—the distance is twenty-two miles. From here to Wabatchie—the junction of the Wills Valley Road with the Nashville and Chattanooga Road—is thirty-three miles, and to Chattanooga forty miles. Ninety miles of railroad, and probably less, will furnish the important link between Jasper and the South-western Road.

The Cincinnati, South-western and Chattanooga Railroad Company has just been vitalized at Jasper. The Commissioners named in the charter met in pursuance of their powers, elected A. A. Hyde, Esq., President, Wm. J. Kelley, Engineer, and Hugh Francis, Esq., General Agent, as well as other general officers and agents. The officers of the board appear to be satisfied that a practicable route can be obtained by their road to Jasper, and by the road as it is to Chattanooga, as some fifty miles shorter than that selected by the Cincinnati and Chattanooga Railroad Company. The first move of the board will be to demonstrate the superiority of their route by an immediate survey beyond Pikeville.—*Nashville Banner*.

Steam on Common Roads.

Mr. William Bridges Adams the well known engineer of London, addresses a letter to the *Times* in which he advocates the use of steam engines on the common roads, thereby rendering the last important feeders to the railway proper, instead of building branch roads which he calls suckers instead of feeders. He says: substitute bands of iron for the broad surface of macadam and the iron horse would take the place of horse flesh, saving nine per cent. in haulage, and doing a weeks work in a day. After speaking of the opposition of vested interests to new projects and the common belief that steam locomotives can only run in straight lines he says:—

"But the practical fact is, that properly

constructed engines and carriages can run upon as sharp curves and up as steep gradients as horses can, and with a power of carrying loads that no horses could ever accomplish, and therefore every common road has the capacity for becoming a railway, with its inns, stations, towns, villages, farms, and water supply already provided. These common roads intersect the railways and form approaches in every direction with very little outlay. The rails can be laid flat with the surface and permit the traffic of ordinary horse vehicles so long as horse vehicles continue to be used. Steam trains can travel on such lines at any speed from five to thirty miles per hour, and although tram rails, as they are called, may be objectionable on crowded London streets and thoroughfares, and such neighborhoods as the parks, country roads present a very different set of circumstances."

He intimates the cost per mile for rails to be from \$6,000 to \$7,500 strong and stiff enough to bear a twelve ton engine capable of drawing on a level 300 tons, two-thirds of which could be paying load; or it could take 16 tons paying load up a gradient of 1 in 25, or 210 feet to the mile. Such engines could run from five to thirty miles per hour and the traffic to consist of freight and passengers, and not as in the United States confined to passengers. He maintains that such roads properly constructed, and not overloaded as most steam roads are would cost almost nothing to keep in repair, while they would become good paying investments in themselves, beside adding very largely to the traffic of the regular steam railways. The other points discoursed in the letter are identical with those previously alluded to in the *Railway Times*; the local benefits of such lines; the opportunities they would give for the middling classes in large cities to live in the country at a reduced cost and greater comfort, the reduced cost of transport for family stores and particularly the benefit they would be to large railway lines as feeders and distributors of traffic. There can be no doubt of the value of such lines and if they have not proved valuable to the owner in their country it is from the fact that the track and rail have not been built strong enough to resist the weight of the engines. An increase in the weight of rail should be insisted upon where steam engines are to be and on street roads. The common horse railway is too light for economical service but when the proper change is made we have no doubt that the street railway system can be extended very largely in the suburbs of the larger cities with profit to all concerned. Mr Adams states that when a traffic of 60 shillings or say fifteen dollars per mile per week can be calculated upon it will justify the laying of the rails on common roads as a self contained speculation, and no truth is more certain than that the means of transit creates and increases transit, and thickens population, and all this culminates in the high speed railway.

THE SOUTH WESTERN RAILROAD.—The railroad from McMinnville to Sparta and northward to Danville, Ky., called the South-western Railroad, has been begun, and has a strong force at work. Within a year the cars will be running to Sparta. Thence to Livingstone, in Overton county, the road will not be very difficult of construction; but after leaving Livingstone, there will be one hundred and forty miles of desperately difficult country.

Coal Cutting by Machinery.

At the recent meeting of the Institution of Mechanical Engineers, Leeds, a paper upon the above subject was read by Mr. John Fernie, in which the objects to be gained by the application of machinery to coal cutting were stated to be: First, the cheapening of the work; secondly, the saving of a large quantity of coal, which, in the ordinary process of bolting or undergoing by hand labor with the pick, is broken up into slack and dust; thirdly, the removal of the danger attendant upon undergoing by hand labor; fourthly, the getting a larger quantity of coal out of the pit; and, fifthly, in the case of machines worked by compressed air, the collateral advantage of better ventilation and a cooler atmosphere in the mine, owing to the discharge of the compressed air after each stroke of the tool. The difficulties attending the application of machinery to work previously done by hand were said to be greatly increased in the case of coal-cutting machines, by their having to work at great depths below ground, and in the very confined passages of a mine. The writer of the paper described two machines driven by compressed air, one having a pick worked by a bell-cranked lever, with an action like that of an ordinary pick used in hand-work, and the other working a straight action tool, somewhat in the manner of a horizontal traversing slotting machine.

Both of these machines have now been successfully employed in regular work for a length of time in the neighborhood of Leeds. One of the pick machines does the whole of the under-cutting at the West Yorkshire Coal and Iron Company's colliery, at Tingley, holing a seam 3ft. 8in. thick, the compressed air for driving it being supplied by an air-compressing engine at the surface. In a trial recently made with this machine by the writer, it was found that a pick of 75lb. weight cutting a groove to a depth of 24in. from the face, gave about seventy-four blows per minute. The coal at Tingley is by the pillar and stall system of working, and the time occupied by the machine in under-cutting the length of 56ft., forming one pillar, was 25 minutes, including all stoppages. With a pick of 90lbs. to complete the previous cut to the depth of 3ft. 9in. from the face, the blows were about sixty per minute, and the half length of 28ft. was undercut in 17 minutes. The time occupied in running the machine back and changing the pick was 16 minutes. From these trials it appears that in undercutting to the depth of 24in. in a single course, the work done was at the rate of about thirty square yards per hour, and in undercutting in two courses to the total depth of 3ft. 9in. the work was done at the mean rate of about 15 square yards per hour, including the time required for running the machine back and changing the pick. The other coal-cutting machine—which may be described as on the horizontal traversing slotting principle—is the invention of Mr. Donisthorpe, of Leeds. The machine traverses along the working face of the coal, and cuts out a horizontal slot or groove along the bottom of the seam of coal, or along a parting in the thickness of the seam itself. The work regularly done by one of these machines employed at the West Riding colliery of Messrs. Kope & Pearson, at Normanton, is at the rate of 8yds. to 12yds. per hour, including all stoppages, and undergoing the coal to the average depth of about 3ft. 4in. in from the face. At the same colliery the work done by each collier by manual labor is about 6 yards per day of eight

hours, undergoing to a depth of 3ft. in from the face. The machine, therefore, performs the work of from 12 to 18 men. Its operation has been found so successful that it was now being employed for a very long continuous face of work, and the different parts of the mine are being laid out, as far as possible, for working according to the long wall system for the purpose of obtaining the greatest advantage from the use of the machine. With great clearness, Mr. Fernie showed how the machine to which he referred answered the requirements referred to in the introductory part of his paper.—*U. S. R. R. & M. Reg.*

The Fall Trade.

Thus far, the fall business has not been such as to satisfy those who may have cherished sanguine expectations. There has been a steady demand for merchandise, but none of the old-fashioned rush and excitement. That sort of thing, indeed, will be no longer expected by any but those who live in the past rather than the present. The present conditions of business are totally different from those existing in ante-war times, and necessitate a different course of business. Prices continue very high, and while that is the fact, there is a standing appeal to the caution of buyers, which makes them cautious in buying, and prevents them from supplying their wants far in advance; hence, we hear a constant complaint of "a slow, dragging trade." At the end of each season, however, the merchant finds that he has done a considerable aggregate business. This feature characterizes current business in almost every department, though certainly less so than a year ago. Again, credits are now greatly contracted. First-class firms can obtain what credit they please, as formerly; but there is a large class who formerly found it easy to buy on four months' time, but now have to pay cash, or accept very short terms. Moreover, such liberal terms are now offered to "cash" buyers by leading houses that it becomes, to a certain extent a discredit to a merchant to do his business mainly on credit. This change in credits necessitates a gradual purchase of goods, extending over the season, instead of buying largely at the opening for the whole season's business—another cause of the "dragging" aspect of trade complained of in some quarters.

In spite of these things, it cannot be fairly denied that the New York merchants are doing a steady, healthy, and remunerative business. There are most substantial reasons why this should be the case. The industries of the country are well employed on a fairly remunerative business, and the working classes everywhere are receiving good wages, enabling them to supply their wants. The agricultural interest is unusually prosperous. The large profits made in farming are inducing a rapid extension of population upon the rich lands of the West, which not only augurs well for the future but promotes present activity in trade. The West has already bought largely in our market, and is likely to take a still further considerable amount of goods as the season progresses. From the South more is to be hoped for than what we have realized thus far in the season would lead us to expect. The credit awarded to that section is limited, and it can only supply its wants "from hand to mouth." Its requirements, however, are likely to be much larger this year than at any period since 1860. Its cotton crop has been raised upon its own unaided means, and it

has consequently little to pay out of its profits to Northern money lenders. The profits of the cotton crop will be large, and instead of, as in late years, holding back all earnings to provide for raising the next crop, there will be a good surplus left for providing dry goods, furniture, and articles contributing to enjoyment generally. The negroes are likely to be better employed and well paid, so that they will have a considerable amount to spend. Nor do we think that the excitement attending the election will materially interfere with the course of trade in that section. A few excitable negroes may run after perambulating politicians; but on the whole, the people are at present more bent upon industry than politics. The recent decline in the price of breadstuffs, though not equal to what some sanguine people expected, is yet sufficient to encourage a generally more active trade movement, and the more so as it indicates a steady return to more moderate prices for food products, the most essential condition of a healthy trade.—*Economist.*

THE AMERICAN CENTRAL RAILWAY.—The American Central Railway will be built from Galva, Ill., to New Boston, Ill., and that will be the end of the project. It has fallen into the hands of the Chicago, Burlington and Quincy Railroad Company, the denial of certain interested parties to the contrary notwithstanding, although a separate organization is still maintained. It will be a feeder of the main trunk of the Chicago, Burlington and Quincy Road, and as such will greatly benefit the company and the country through which it passes. Our New Boston friends will thus have an eastern outlet by rail, but it will be many years before they see the extension of the road to Fort Wayne, Ind., east, and Omaha, Neb., west. It certainly will not be for the interest of the powerful company which has now come to the rescue to build an opposition line eastward, and no company will undertake to bridge the Mississippi at a point so near the Burlington bridge as New Boston. Burlington, Rock Island and Quincy are the three main crossings of the river for the principal trunk lines through Iowa and Northern Missouri, and will continue to be for many years. We predict that the result of this effort of our neighbors to obtain better rail communications will be the completion of the Galva and New Boston branch of the Chicago, Burlington and Quincy, and the building of a north and south road on the Illinois side of the river. A connecting link from Rock Island to Burlington will fill the gap and give an all rail line from Fulton, Illinois, and Clinton, Iowa, to St. Louis, ultimately connecting with the Wisconsin and Minnesota lines at La Crosse. This is a project that will work out itself in less time, perhaps, than might be supposed at first glance, but it will come, and it will be the solution of the whole problem of perfecting rail connections with all the river towns, and placing them in close communication with the great East and West routes.—*Burlington Hawkeye.*

PERMANENCY OF MINING.—Perhaps the best evidence of the permanency of the mines of the precious metals may be found in the fact that, after more than three or four centuries of operation, more or less active, the silver mines of Mexico remain as her greatest industrial resource, the basis of her commerce, and the best security she can offer for the cost of any improvement she may contemplate.

YORK RIVER RAILROAD.—The preliminary contract has been entered into between the York River Railroad Company and a party of Northern capitalists, which will secure its completion to West Point by the 1st of Jan., 1869, at farthest. All of the remaining 16 miles, from the White House, its present terminus, to West Point, is graded, and to lay the track ought not to require over sixty days. It is stated that Joseph R. Anderson & Co., of the Tredegar ironworks of this city, have the contract for the iron.—*Richmond Whig.*

A company of Northern capitalists having recently purchased a large quantity of land at West Point and in its vicinity, vigorous efforts will be made to utilize the commercial advantages it possesses. Situated on the York river, at the head of the peninsula formed by the Pamunkey and Mattaponi rivers, it is but forty miles from Richmond, and it affords easy access for vessels of the largest class to the ocean. Even at this time a line of steamers is running four times a week between Baltimore and White House, sending their cargoes thence to Richmond by the York River Railway. When proper landing facilities are furnished at West Point, and the railway is completed to that place, it is supposed that it will become the maritime outlet not only of a large proportion of the commerce of Richmond, but also of the through freight brought from the West over the line of the projected Chesapeake and Ohio Railroad.

RAILROAD PROGRESS IN MICHIGAN.—The building of new railroads is making rapid progress in Michigan. The *St. Clair Republican* says that two hundred men are at work on the air-line road between Ridgeway and Romeo. The route is level and easy to grade, and good progress has already been made. The citizens of St. Clair are happy in the prospect of railroad as well as river communication.

The Grand Rapids *Eagle* says that the directors of the Kalamazoo, Allegan & Grand Rapids Railroad have located the route from Grand Rapids to Allegan, and have let the contract for preparing it for the iron to Goss, Warner & Co., who also have the contract for grading, building and furnishing the ties for the road from Kalamazoo to Allegan. It is expected that the contractors will put on all the men they can employ, and push the road to completion as fast as possible.

The *Eagle* also says that the Grand Rapids & Indiana Railroad Company received six car loads of iron for their road this week. Track laying will commence in good earnest. One half the road between Grand Rapids and Kalamazoo is ready for the iron—nine miles on the north and fourteen miles on the south end. It is expected that the track-layers will be able to finish up half a mile a day. The road will probably be completed through to Kalamazoo by the first of January, 1869.

THE JUNCTION OF THE UNION PACIFIC RAILROAD.—A few days ago Gov. Stanford let a contract for the grading of the Central Pacific Railroad for one hundred miles west from Monument Point, which is at the north end of Salt Lake. We announced the letting of this contract at the time it was let. We now understand that the Union Pacific Company have located their line from the mouth of Weber to Promontory Point, or in that neighborhood, and that they have let the contract for the grading of it to some parties who have just finished a contract somewhere east of

Green River, and that they will commence work with a very heavy force in a short time. We also learn that the Union Pacific Company have located their line for one hundred miles west of Promontory Point—that is one hundred miles west of the eastern end of the contract let a few days ago by the Central Company. It seems from this that no point of meeting has been settled upon for the two lines. The Central Pacific have abandoned all the ground east of the north end of the lake, but it does not look as though the Union Pacific had abandoned all west of it.—*Salt Lake Reporter*.

REFRIGERATING RAILROAD CARS.—On the track of the Hudson River Railroad, in West Broadway, near Chambers street, there is at present a railroad car designed for the transportation of fruit, fish, flesh and other perishable productions of the animal and vegetable kingdoms long distances at moderate cost and without deterioration. The car is so constructed that any degree of cold from zero upward can be obtained, and in such a manner that while the most delicate fruits may be preserved for weeks they will not be frosted. The car is, in fact, a huge fruit or meat preserver, acting on the principal of the preserving jar or can, the only difference being that one obtains by the introduction of cold what the other secures by heat—namely, the expulsion of the atmosphere. It is constructed as follows: The box of the car has an air chamber two inches in width between the inner and outer linings of the wood work. Next to this is a coating of wool four inches in breadth, and yet again within these walls are placed four chambers, capable of containing two or three hundred pounds each of ice. At the ends of the vehicle are also placed receptacles for ice. Within the body of the car were placed, plucked from the trees and boxed at Middleton and Dayton, Ohio, on the 1st of September, three hundred bushels of peaches, which are to day in precisely the same condition they were when taken from the trees, with this important addition—that peaches which had commenced to decay were arrested in their rottenness, and the parts injured seemed to have dried up. To reduce the temperature within the car to the necessary degree of coldness for preserving fruit (forty degrees Fahrenheit) about four tons and a half of ice are necessary, after which the consumption is trifling—somewhere in the neighborhood of a ton a week. The importance of this invention will be obvious to every one when they reflect that by it not only is the transportation of the fruit from the far interior possible, but even meats prepared at the foot of the Rocky Mountains can be safely and cheaply conveyed to the markets on the Atlantic coast; and in return for the fruits, the vegetables and the animal meats of the West (slaughtered on the plains, where their blood is cool and their flesh fat and juicy) there can be forwarded to any part of the continent and sold to the consumer as fresh as the hour they were taken the products of the sea. The new car is destined to open, without loss by corruption, a new trade that will be as valuable to one section of the country as to the other, and which to consumers will not only be a source of pleasure, but of luxury and cheapness. The day is not far distant when the gourmand residing in the heart of the continent can eat his oysters on the "half shell" with the same gusto as his brother of the Atlantic and Pacific shores.—*New York Herald*.

CONDENSATION IN STEAM ENGINES.—M. Couste has addressed a paper to the Academy of Sciences on the question of using high-pressure engines on board sea-going steamers. The greatest obstacle hitherto met with in this matter consists in the incrustations caused by sea water in the generator. In England it has been tried to solve the problem by the adoption of the surface condenser, by which means water free from incrusting matter may be used. But this apparatus can only succeed in cases in which we have very large condensing surfaces at command, and this is the cause of ill success of all the plans hitherto tried, except on rivers and in manufactories, where high-pressure, with condensation by injection, are almost exclusively employed. The latter principal is strenuously advocated by M. Couste as the only one to be followed. Having treated the question by calculation, he arrives at certain formulas, from which it appears that the part of work done due to delay or slowness of condensation is in the inverse ratio: 1. Of the surface of the injected water. 2. Of a factor expressed by unity, plus the ratio of the empty capacity of the condenser to the cylinder. 3. Of the duration of the stroke of the piston. Several important considerations emerge from this theory; the surface of injection, for instance, had hitherto been considered nearly a matter of indifference, no measure having ever been taken to divide the water into many jets; then, until now, the rule was to diminish the capacity of the condenser, whereas it now appears that it ought to be increased as much as possible. Lastly, our author shows that the vacuum caused by condensation is only limited by the weight of the valves of the air-and-water pumps, and at the temperature for this operation may be as near that of the water injected as convenient, provided the latter be intimately mixed with the steam, a condition M. Couste fulfills by a new improvement. He moreover shows by his calculations that a clean metal is not so good a conductor of caloric as when it is covered with a slight incrustation.

WONDERFUL DISCOVERY IN TELEGRAPHING.—Mr. J. H. Mower is said to have discovered a means of transmitting messages under water without the aid of a wire. He unites a Voltaic pile of enormous producing power with an electrical machine of his own contrivance, and sinks his machinery until it reaches still water, that can not be affected by the surface waves or currents. Then, at a point to which he wishes to send his message, he sinks another electrical machine. The two submerged machines must be on the same line of latitude, to an inch. The water at the point of contact with the fluid is decomposed in the first drop, when the chemical separation advances to the second globule, and there effects a like change, communicating the evolution to the third, and so in the line of transmission, always in the same stratum of water, to the end of the series; and when positive decomposition takes place in the first, negative decomposition is involved in the last. It will be seen at once that the quantity of electricity required to resolve the evolution is in constant proportion to the force of chemical affinity by which the elements are united, and it therefore only requires great propulsion to send the decomposed ingredients on *ad infinitum* in the direction of the promulgation of the agent effecting the same. Why this line of invariable decomposition is always east and west, Mr. Mower will not now dis-

close. The action of the electricity in the same stratum is explained in the unequal densities of different strata, the intensity of gravitation acting as well for imponderable bodies as for those of considerable weight. Nor can any sail or base, held in solution by water, deflect the line of transmission from its parallelism to the surface of still water; first, because of the laws of gravitation. The only obstacle to the action of this mode of telegraphy will be the tidal waves rising and falling in the two hemispheres at different times; but these barriers can be easily surmounted by sinking the apparatus to a depth beyond their influence. The experiment was recently made in Lake Ontario, and messages were transmitted between Sandy Creek, Oswego Co., and a point near Toronto.

He intends to establish a line from Montauk Point to the Coast of Spain, costing about \$10,000.

STEEL IN PART FOR RAILS.—Mr. Peter Ashcroft, the Engineer of the South-eastern Railway, has invented an ingenious contrivance for using the least steel in rails yet presenting only a steel surface to the wheels, and enabling renewals to be readily effected. It will be remembered that, to economise steel, rails were topped with a coating of steel, the body being iron. But this did not answer in practice. The steel peeled off, and thereby did more damage than good. A solid steel rail was not open to this objection, but it was to that of expense, to the waste of so much costly material in the body of the rail where iron would answer all the purpose. Mr. Ashcroft's invention meets both objections, and introduces a great additional improvement for a crowded line, where renewals should be easily effected. He introduces between a pair of iron plates a steel rail, which fits in between the iron plates, the steel being tightly secured by screwing the iron plates up. The trains work only upon the steel, and when it is necessary to renew it is done by simply unscrewing the iron plates, taking the old steel rail out, and putting a new one in. We hear the plan is working extremely well on the Charing-cross line.—*Herapath's (London) Railway Journal*.

The Chicago *Railway Review* says that Jas H. Dudley writes to the *New York Tribune* in response, to L. Gaylord Clarke's letter (recently published in the *Review*), claiming the honor of being the first one who predicted the building of a railway across the Rocky Mountains to the Pacific. Mr. Dudley says that if Mr. Clarke will take up the Rev. Samuel Parker's "Journal of an Exploring Tour beyond the Rocky Mountains, under the direction of the A. B. C. F. M., in the years 1835, '36 and '37," and to turn to pages 76 and 77, he can read as follows:

"Aug. 10, 1835.—The passage through these mountains is in the valley, so gradual is the ascent and decent that I should not have known that we were passing them had it not been that as we advanced, the atmosphere gradually became cooler, and at length we saw the perpetual snows on our right hand and on our left, elevated many thousand feet above us—in some places ten thousand. The highest part of these mountains are found by measurement to be 18,000 feet above the level of the sea. This valley was not discovered until some years since. Mr. Hunt and his party, more than twenty years ago, went near but did not find it, though in search of some favorable passage. * * *

There would be no difficulty in the way of constructing a railroad from the Atlantic to the Pacific ocean; and probably the time may not be very far distant when trips will be made across the continent, as they have been made to the Falls of Niagara, to see nature's wonders."

Very likely (says Mr. Dudley,) this prediction of the Rev. S. Parker was the direct inspiration of Mr. Clarke's article in the "blesed old *Knickerbocker Magazine*," as *The Journal* had then been before the public but a short time.

ANOTHER PROPOSED BRITISH CHANNEL SUBWAY.—Mr. G. Remington proposes the construction of a railway from the South-eastern Railway at Appledore to the town of Lydd, a descending gradient of 1 in 70 for 3½ miles to Dungeness, where the level of the railway tunnel intended to pass under the English Channel would be 240 feet below the level of low water spring tides; from the latter level the line was to raise at the rate of 1 in 3,795 for about 7 miles, then a descending gradient at the rate of 1 in 1,200 for about eight miles to the centre shaft, and thence another descending gradient of 1 in 3,265 for 11 miles to Cape Grisnez. From this point raising gradients of 1 in 70 and 1 in 71 to join the French railways. The height of the tunnel would be 30 feet from the soffit of the arch to the centre of the invert, leaving a clear headway of 20 feet for the trains; the space between the rails and the invert would be occupied by a spacious sewer, running along the central line of the tunnel, and on each side of it are two air tunnels for the purpose of providing ventilation. The width of the tunnel was to be 25 feet. It was proposed to carry the tunnel through the Wealden formation, consisting of very strong clay beds of freestone and fresh water limestone all the way. The estimated cost of the works, allowing £638,000 for contingencies, was £7,000,000. The probable income of the railway was estimated by Mr. Remington at £1,625,900 per annum, the working expenses at £650,360, and the net profit at £975,540.—*London Railway News*.

The Snow Problem on the Central Pacific Road is not yet solved, we learn from the *Rocky Mountain News*. The Company last winter built sheds for the protection of their tracks over the Sierra Nevada. They were, however, crushed by snow. The Company are now engaged in constructing new sheds, with frame work of heavy timber, and pointed roofs. About forty miles of track will require to be covered, and it is stated that twenty-two saw mills, most of them worked by steam, are running night and day, employing nearly two thousand men, and six more are building. It is estimated that it will require eight hundred thousand feet of timber to the mile, for the sheds.

General Clinton B. Fiske, Vice President of the Atlantic & Pacific Railroad Company, is in Washington arranging with the Commissioner of the Land Office and Indian Affairs concerning the selection of the lands and immediate survey of the thirty-fifth parallel route from Neosho, Mo., and Fort Smith, Arkansas, *via* Albuquerque.

—A cable between Portugal and the United States is projected.

—The Mississippi & Superior Railroad was formally opened to White Bear Lake by an excursion last Thursday.

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4	192	54	14	192	57
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6	320	70	16	320	75
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When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

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Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis.

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

W. M. RITCH, Pres't, C.&I.C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati.
J. H. WELLS, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R.R., Indianapolis
Aug. 2, 1866]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Day Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	3,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts, Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,

for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD —OF— NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front to East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 3:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

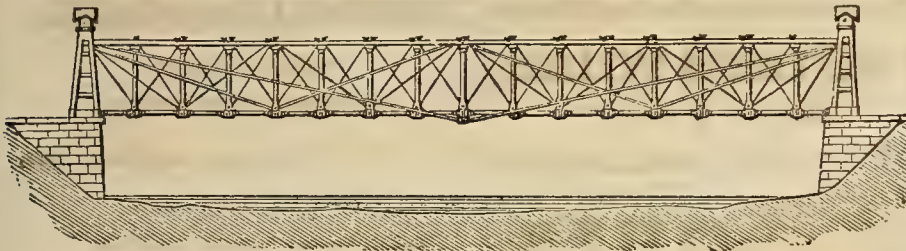
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowls or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN, ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

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W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
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The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati

W. P. SHINN, General Freight Agent,
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.

3.0 Main Street, Memphis, Tenn.

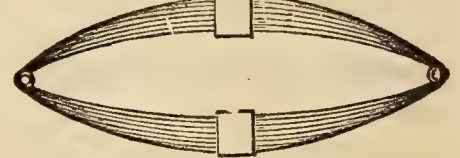
PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS.

FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
 Baltimore.*

L. WILSON, Master of Transportation.
 M. COLE, General Ticket Agent.
 O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted :

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 30 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Rich- mond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; or at the new office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

JANUARY 5th, 1868.

*Cincinnati to St. Louis Without
 Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS :

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
 J. W. CONLOGUE,
 General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD
 Great Through Passenger Route from CINCINNATI to
ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.20 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
 Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

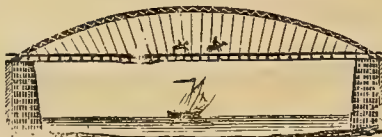
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CON-
 stantly on hand, painted, and ready for shipment,
 with instructions for applying them.

MOSELEY & CO.
 Boston, Mass.

EDWIN J. HORNER,

Successor to

J. McDANIEL & HORNER,*Locomotive and Railroad***CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9.

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continues to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JORN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, **CHAS. WHEELER**
THOS. T. TASKER, JR., **S. P. M. TASKER**
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore**RAILROAD!!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
 4.15 (Express Monday excepted); 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.
 On Sundays, 4.30 A. M.; 11.30 P. M.
 Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)
SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.
 Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON, } Editors

CINCINNATI:
THURSDAY, OCTOBER 3, 1863.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1.00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:20 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION
Gonnerville, Cambridge City and
Indianapolis Mail..... 6:15 A. M. 10:20 A. M.
Gonnerville, Cambridge City and
Indianapolis Express..... 5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.
Chicago and St. Louis Express..... 7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

The Pacific Railroads!

Their Commercial Influence in Developing the Country.

We spoke in our last, of the needs of labor, and how labor could be benefited by public works. The fact, that labor is so benefited, and that one of the objects of Government is to aid it in finding employment, the history of Europe has completely demonstrated. One of the great objects of the Government of France, is to find employment for its people; and to a considerable extent, this is true of Austria, Prussia, Holland, etc. One indeed, and a very good one—for the Governments of Europe is maintaining their immense standing armies—is the necessity for employing the people. That it is a very expensive employment it must be admitted. Hence, if the same number of men were employed in making roads, bridges, canals, public buildings, gardens, etc., what a vast improvement in Europe and in its appearance would be made! There are in Europe *four millions of men*, employed by Governments of Europe *in arms*. Now, if we consider that there must be more than a million of others employed in making their arms, clothing, food, etc., and multiply these by the usual ratio for families, we shall find the surprising fact that *thirty millions of people*, one-seventh the population of Europe, are maintained by the Governments in military service. What is the necessity for this? These Governments will say, perhaps, that they don't disarm because others do not. But, why do not others? If we look into this matter closely, we shall find that the Governments of Europe do not know what to do with their people. Thirty millions of people thrown out of employment, would convulse Europe to its foundation. There are millions now supported by charity; what can be done with this vast number? This fact is *suggestive* of what we ought to do for the *future employment of surplus people*. Some one who looks around upon our extensive country, and regards the high price of labor, may smile upon all this. But, there is another aspect of the case. A large part of our great population, is already crowded in cities; and already there are tens of thousands of people supported by charity; and one-half the extent of our great country is positively inaccessible *for want of roads*. Two things, therefore, are quite obvious; that there will be an increasing surplus population to provide for, or, if you choose to consider in another way, an idle, or helpless people. We see them in every city, and we find tens of thousands of helpless men out of employment. To employ them, and to help them, becomes more and more a duty of Government. This duty is acknowledged when we build asylums and poor houses; and in a few years it will be ac-

knowledge as a duty in other ways. Then comes up the question, whether we shall imitate the Governments of Europe, in keeping up enormous armies; or, by instituting a broad system of humane and beneficent works, thus find employment, and at the same time, improve and beautify the earth, while we enlarge the circumference of human action. Hence it is, that we say openly, in contradiction to many others, that it is the *duty* of Government so far as it can, in the course of its operations to make public works, which are clearly for the public good. Let us now see how it is in the power of the Government to do this, in support of its own legitimate interests, as well as the wants and interests of working-men.

The other day, we saw an account of the arrival of the Hon. Mr. Cole, at Omaha, in *nine days* from San Francisco! This shows a great revolution already accomplished by the Pacific Railroad. Now this road will run to the Pacific on a central route, and by means of lateral branches run out from near the foot of the mountains, it may be made to accommodate an average breadth of 150 miles of country. It can not do more than this, without great and difficult land journeys, and certainly it can not do more for freight. The consequence is, that the actual settlements of the country, so far as they are aided by the railroad, will be wholly confined to a breadth of 150 or 200 miles. In that belt, towns will arise, and lands will be cultivated. But outside of that there will be little or no settlement and cultivation. But is that all the United States owns in the wilderness? And is it all the working-men are interested in opening up to cultivation? Let us see. The following are the territories and States which lie beyond the first tier of States West of the Mississippi, and their area:

	Square miles.
California.....	188,982
Oregon.....	95,274
Nevada.....	83,500
New Mexico.....	124,450
Arizona.....	130,800
Colorado.....	106,475
Idaho.....	333,200
Dakotah.....	152,500
Kansas.....	83,090
Utah.....	109,600
Washington.....	71,300
Indian Territory.....	71,000
Nebraska.....	63,000

Area..... 1,613,081

Now, on the supposition, that the Pacific Railroad will develop a belt 200 miles wide and 1,600 miles in length, the whole *area* supplied by this road is but 320,000 square miles, which is but *one-fifth* part of that vast surface which has no railroads, is devoid of water lines of transit, and with comparatively no settlements. Now, taking this out, and we have 1,300,000 square miles, enough to make *twenty-six great States*, for which the Government has supplied no means of tran-

sit. This comprehends *the whole* of New Mexico, Arizona, Nevada, Dakotah, Montana, Idaho and Washington. Now, we say, in order to *develop and settle up* this immense territory, there is just as much need of *four other great railroads* as there is of the one made. But, we may suppose that by aid of lateral roads, two other Pacific roads will be sufficient, and that is the idea which has heretofore been set forth in these columns.

A Northern road from Lake Superior to Puget's Sound, would supply 300,000 square miles of Territory, which could not be reached by the Central Pacific; and a Southern Pacific road will reach 300,000 square miles not reached by either. If this be the case, why should not the Government assist the Northern and Southern routes as well as the Middle? Have not the people of the United States as much right to demand the settlement and civilization of the immense now wild districts of the north-west, and the equally wild and unsettled districts of the south, as they have to demand aid and give it for the Union road in the Middle? What is it this country wants with railroads to the Pacific? Mainly to open our vast interior wilderness to settlement and commerce. That is the main object, and the people have a right to demand it—the civilization of the world demands it. Much may be added to this argument, which we may consider another time.

Blue Ridge Railroad.

We publish in another column the act recently passed by the Legislature of South Carolina, in aid of the construction of the Blue Ridge Railroad. This should secure a sufficient amount of means for its completion. The road when completed will run from Knoxville, Tennessee, to Anderson, S. C., and there connect with the system of roads leading to the Southern seaboard. We understand that gentlemen connected with the road and some prominent citizens of Charleston are to visit Cincinnati during the present month with the intent of conferring with our business men as to the importance of the route to this city. It is now thirty-three years since similar conferences were had in reference to this very route, and it has been talked about ever since. We understand that on this occasion they want a more substantial evidence of good-will than talk, (as far as talking goes the subject has been exhausted), they want, not to beg, but to arrange to sell, at a fair price, the bonds authorized to be issued, by the Company and that are to be endorsed by the State of South Carolina. If this is done their end of the route will soon be completed.

We suppose, while here, they will want to know something about what Cincinnati proposes to do for the construction of her end of the route—the gap between Nicholasville, Ky., and the Tennessee line. We have no fears

but that they will readily be convinced that Cincinnati is a city of grand *conceptions*; and whoever may live to see the *borning*, if the product is equivalent in the magnitude of its results with the period of *gestation*, they can not fail to be impressed with the fact that it is a "big thing." We have reasons to fear, however, where so much is to depend on Cincinnati arguing from the past, that the *travail* will be *abortive* and the result only *wind*.

We do not desire to discourage any efforts whatever, calculated to advance the improvements leading to and designed to add to the commerce of our city,—far from it; but as it is well known that continual dropping of water will wear away a stone, perhaps this is the last drop that is needed to set the whole in motion. So gentlemen come along, we greet you.

The Louisville, Cincinnati & Lexington Railroad Company.

The Second Annual Report of the Louisville, Cincinnati & Lexington Railroad Company has been upon our table for a few days, during which time we have perused it with considerable interest. It is a full and complete exhibit, of the condition and progress of that work, and contains much that is valuable to the railroad interests of the country generally.

The present line is made up of the Louisville & Frankfort and Lexington & Frankfort roads, and is 94 miles in length. It is operated by an Executive Committee of which Mr. W. A. Dudley is chairman.

The report gives the following comparative earnings of the road for the years 1867 and 1868, ending June 30th:

	1867-8	1866-7
Passengers.....	\$277,702 59	\$283,812 64
Freight.....	187,247 74	202,137 92
Express.....	15,437 14	12,831 65
Mail.....	9,400 00	6 400 00
Telegraph.....	1,111 27	1,249 74
Miscellaneous.....	2,320 19	837 07
Total	\$493,218 93	\$510,319 02
Expenditures..	335,971 87	357,101 90
Net earnings..	\$157,247 06	\$153,217 12

The decrease in the total earnings of 3 4-10 per cent is due mainly to the falling off of freight receipts, attributable to the failure in the grain crops throughout the country adjoining these roads.

And it also shows from a detailed exhibit the cost per passenger and freight trains per mile, and the cost per ton of freight, and per passenger one thousand miles. The aggregate cost of each passenger train per mile for the fiscal year 1868, was 148-39 cents, and of each freight train 206-62 cents. The cost of hauling one passenger 1,000 miles was 2,889 cents, and one ton of freight the same distance 4,131 cents.

The number of passengers carried was 328,803; number carried one mile 7,078,999; average distance passed by each passenger 21.53; earnings per passenger per mile 3-92 cents; earnings per mile run by passenger trains, \$219 49.

Number of tons of freight hauled 68,510; hauled one mile 3,181 38; earnings per ton per mile, \$5 88.

The Company owns 14 locomotives, 13 baggage cars, 24 freight cars, 74 stock, 51 platform, 5 baggage, 38 ballast, 3 hand, and 1 boarding house car.

In speaking of the Cincinnati Branch, the report says:

CINCINNATI BRANCH.

At the date of our last report the construction of this Branch had just been fairly commenced. Since then the work has been steadily prosecuted, and now approaches completion.

In November, through the agency of A. S. Hewitt Esq., of New York, I negotiated the purchase of 8,000 tons of rails, and the joint fastenings for half that quantity of rails, from Messrs. Guest & Co. and Bolekow, Vaughan & Co., leading English manufacturers. In February following, Messrs Guest & Co. accepted an order for an additional thousand tons. The sad experience of other companies had shown the purchase of *cheap* rails to be false economy. Our original estimate, therefore, contemplated the payment of an extra price, with a view to secure a really good rail, and Mr. Hewitt was authorized and agreed to pay, for rails manufactured under inspection, upon specification furnished by himself, about twenty per cent. more than was asked for ordinary Welsh rails made for the American market. Mr. C. P. Sandburg, an engineer of distinction, was employed to make the inspections. The larger portion of the rails have been received, and, in justice to the manufacturers and the inspector, I should add that from such examination as we have been able to make, we are satisfied that their quality will be found fully to justify the extra price paid for them.

Our first estimates were for about 8,300 tons of rails, at a cost of \$95 per ton, delivered on the line of the road. The actual purchase, as above stated, is 9,000 tons; the cost of which, delivered on the line of the road, will not exceed \$86.50 per ton. Notwithstanding the purchase of 700 tons more than was estimated for, the aggregate amount paid will fall short of the estimated cost by several thousand dollars. The new rails not required to lay the Cincinnati Branch will be used in relaying the road between Lagrange and Louisville. The old iron thus replaced will be used for repairs of the line between Lagrange and Lexington, and in laying the sidings upon the Cincinnati Branch.

The purchases of rails were made on credits of one, two, and three years from the several dates of shipments. The notes of the companies, bearing interest at the rate of seven per cent per annum, were given in settlement, and our bonds deposited (at the rate of eight dollars of bonds to each pound sterling of notes) as collateral security for their payment. The item "Bills Payable," in the general balance-sheet, of course includes only the notes given for that portion of the rails for

which shipping documents had been received prior to the 1st of July.

The adoption of a less expensive form of joint fastening than was originally proposed, coupled with the decline in prices, has enabled us to effect a saving of nearly \$40,000 from our estimate of the cost of that item. All of these have now been purchased.

Ten locomotives for passengers and freight and two for switching purposes have been contracted for with the Rogers Locomotive Works. One switching engine has been delivered, and the remaining number will be ready when needed. This purchase also was made upon satisfactory credit—the payments being secured by a deposit of bonds, as collateral, at the rate of 85 cents to the dollar. Owing to the decline of prices since our estimate was made two years since, we were able to secure the locomotives at an average reduction of more than \$5,000 each from our estimate of their cost.

All the iron spikes have been purchased and paid for at prices less than our estimate. Cross-ties have been contracted for and are being rapidly delivered. Their cost will not exceed the estimate.

Our charter authorizes the issue of three millions of mortgage bonds. These have been disposed of as follows:

Amount issued and paid for as per general balance-sheet.....	\$2,116,000
Amount subscribed but not yet paid.....	162,000
Amount deposited as collateral on purchase of rails.....	552,000
Amount retained as collateral for purchase of locomotives.....	170,000
Total	\$3,000,000

We were also authorized to issue one million of preferred stock. Of this there has been paid for from the net earnings of the road, and issued for dividends during the years 1867-68,

The sum of.....	\$145,921 94
And sold for cash.....	65,200 00
Making amount actually issued....	\$211,121 94
To which add amount subscribed but not yet paid.....	77,000 00
Leaves for future disposition.....	711,878 06

Total..... **\$1,000,000 00**

The amount necessary to place the Cincinnati Branch in operation was originally estimated at \$3,459,011. Three fourths of the graduation and masonry are now complete. The iron rails, joint fastenings, spikes, cross-ties, and locomotives have been purchased or contracted for at fixed prices; and we are now satisfied that the original estimates will be reduced rather than exceeded by the actual result. The means to meet that expenditure are as follows:

Proceeds of \$3,000,000 of mortgage bonds at 85.....	\$2,550,000
Proceeds \$1,000,000 preferred stock at par.....	1,000,000
Total.....	\$3,550,000

Which gives an excess of means over estimated expenditure of \$90,989.

The general account June 30th 1868, gives the following tabulated exhibit:

GENERAL ACCOUNT, JUNE 30, 1868.

Construction acc't—Cincinnati Branch	\$2,107,196 57
Discount on bonds.....	317,400 00
Interest on bonds.....	71,691 75
Due from sundry individuals	26,898 37
Real estate.....	59,456 08
Stock of supplies on hand for current operations.....	59,456 08
Cash on hand.....	389,952 61
	\$2,995,845 38
7 per cent. first mortgage bonds, due in 1897.....	\$1,116,000 00
9 per cent. preferred stock.....	211,121 94
Due sundry contractors for reservation on estimates.....	102,369 48
Due other companies for ticket sales	242 44
Bills payable—Due Messrs. Bolekow, Vaughan & Co., and Messrs. Guest & Co., England, for rails, fish plates, and bolts received, payable in one, two, and three years, interest included and converted into currency.....	449,314 62
Unpaid coupons.....	12,110 00
Unpaid dividends.....	7,578 00
Due sundry individuals.....	1,830 44
Balance to credit side of income account.....	95,278 46
	\$2,995,845 38

In a report dated August 1868, the Chief Engineer I. M. St. John, gives the following complete information concerning the Cincinnati extension:

My last annual report stated the commencement of work in the late spring of that year (1867)

I now take pleasure in reporting advanced progress upon all work of the line, and the completion of a considerable portion of the graduation, masonry, and tunnel-work and bridge superstructure. Track-laying was commenced last month from Lagrange, from Worthville, on the Kentucky river, and from the Licking river at South Covington; and, should no interruption occur entirely beyond engineer control, the three parties will join up the track to pass trains through to Cincinnati during the coming winter, and possibly by the commencement of the December rains.

During the twelve months past, our operations have progressed steadily, and with an unusual exemption from strikes, riots and destructive accidents. Labor alone has given trouble; although really abundant, it is fluctuating and unsettled to a degree heretofore unknown on public works. To keep the line properly supplied has required unusual efforts both from engineers and contractors. At date the line has the necessary force.

The bridge superstructure of the line is nearly finished, and is promptly delivered as called for. Also, of the track material, iron and cross-ties, over seventy-five per cent is now on the work, and the residue is rapidly coming forward. And finally, at date, eighteen and a half miles of track and siding have been laid, and the track parties are steadily progressing. I therefore repeat with confidence, your track will be laid during the coming winter, and probably by January 1st.

THE WORK AS COMPLETED—DISTANCE, ALIGNMENT AND GRADES.

The measurements of the line give the following results:

	Miles.
From Beargrass Depot, head of Jefferson street, Louisville, to South Covington Junction, Kentucky Central Railroad.....	103.33
From Beargrass Depot to Ohio river, south end Covington and Cincinnati Suspension Bridge.....	105.90
From Beargrass Depot to Ohio river, south end proposed Covington Railroad Bridge.....	106.03
From Beargrass Depot to Ohio river, south end proposed Newport and Cincinnati Bridge.....	106.90

These distances include the Hobbs cut-off; until finished nine-tenths of one mile should be added to each distance above given.

The maximum curvature of the line is 6 degrees, or 955 feet radius. Also the maximum grade is 60 feet per mile, which is nearly twenty per cent lighter than that of the Louisville and Nashville Railroad, and still more favorable than the maximum gradients of our more distant connecting lines.

As far as the Kentucky river, midway between Louisville and Cincinnati, the line of your railroad runs parallel with and quite close to an air-line from Jefferson street, Louisville, to the Cincinnati Suspension Bridge. From the Kentucky river eastward, while the air-line crosses the Ohio river near Warsaw, returning in a short distance to the Kentucky side, the line of the Louisville and Cincinnati Railroad pursues the two parallel valleys of Eagle and Band Lick creeks, the closest approach to the air-line, in our very broken country, which permits a railroad location with gradients so low as 60 feet per mile.

Your location, therefore, holds the vantage ground between Louisville and Cincinnati—the distance from the outer junction with the Louisville and Nashville Railroad to the Suspension Bridge in Cincinnati, by the Kentucky route as completed, being at least thirty-three miles less than by the Indiana route via Seymour. Should future competition call for a still shorter line without regard to expenditure, three and a half miles additional can be saved by accepting the heavy tunnel cut off from the Boyer ridge to the Kentucky river, and two others noted elsewhere, the cost of which, however, was found to exceed the useful value of distance saved, as estimated upon the present resources of the company.

The bridge superstructure of the line was let in February last (after a spirited competition from the first bridge works of the country) to the Louisville Bridge and Iron Company, and to Smith, Latrobe & Grants, in conjunction with the Phoenix Iron Works, of Pennsylvania.

The form of bridge truss adopted for all spans of fifty feet and over, is the Fink triangular and suspension, with contract stipulations that in character and quality of work they shall be at least equal to similar structures on the Louisville and Nashville Railroad.

For spans under thirty feet the wrought iron girder (Phoenix beam) is used.

The iron trestle bridges are built on wrought iron tubular columns (Phoenix pattern), of the same character used in the Louisville

bridge over the Ohio river, and the Nashville bridge over the Cumberland river. These wrought iron columns are erected at intervals of thirty feet from centre to centre, firmly bolted at the base to stone pedestals on suitable piers of masonry, and they are well braced longitudinally and laterally with iron rods and struts. The track above is supported on timber string-pieces, well trussed with iron, from column to column; and on either side of the track there are footways and railing.

Explaining the use of these structures, it may be added that to hold gradients so low as sixty feet, over a country so broken, a few of the intersecting valleys were necessarily crossed high above their bed. The character of the borrowed material in this vicinity forbade embankment, and no quarries sufficiently extensive could be found for structures similar to the high bridge on the Muldrough's hill grade of the Louisville and Nashville Railroad. The entire success of the Fink cast iron trestle on the Cheat river grade of the Baltimore and Ohio Railroad (now reported by the officers of that road to be in perfect condition after sixteen years' use) suggested a more economical solution of our problem than either embankment or high bridge; especially in using the more improved Phoenix wrought iron column instead of the old cast iron. Proposals were accordingly invited for structures upon this principle, and the work was taken at lowest bid, by Smith, Datrobe & Grants, upon the plan of Mr. C. Shaler Smith. The erection of the first of these structures over Bullock-pen creek has been commenced, the masonry having been completed and the iron work having arrived at Covington.

BRIDGE CONNECTION AT CINCINNATI.—As a part of the surveys of the Louisville and Cincinnati Railroad, and under your special instructions, I made careful instrumental examinations for a bridge connection over the Ohio river with Cincinnati, commencing at the high bluff west of Willow Run, Covington, and terminating at the high grounds at the mouth of Taylor's Run, Newport. Upon these surveys, test soundings, plans and estimates were made and reported to you. The information thus obtained was tendered to responsible parties in Cincinnati representing or controlling the railroad interests with which a desirable connection could be made with your road.

The lower railroad interests, or those coming to the Ohio river opposite Covington, gave the subject attention, but were not prepared for immediate action.

The upper interests, opposite Newport, entered more warmly into the project, secured charters from the Kentucky and Ohio Legislatures, and organized a responsible company to build a high bridge for both railroad; and general travel. The right of way to the river front and bridge head has been granted by both cities, Covington and Newport, and to the Newport bridge by the city of Cincinnati.

COST OF WORK.—On July 1st (ult.) a careful recalculation was made to determine the cost of the entire work done and to be done. The cost of over three-fourths of all graduation (track and bridge) having been determined by actual payment, the uncertain elements of the original estimate have been reduced within narrow limits. The result of the revised calculations confirms the accuracy of that estimate as sufficient to complete the work upon the plan originally called for; being as follows, viz:

Graduation.....	\$1,138,886
Masonry	301,326
Superstructure, bridge and track....	1,516,924
Superintendence, etc.....	107,265
Depots, sidings and right of way...	358,000
Equipment	511,000

Total cost to Covington (Tenth St) \$3,933,401
And for the Newport line (including Licking river bridge and grading to Cincinnati bridge head)..... 4,045,266

The officers of the road are, Samuel Gill, *Superintendent*; I. M. St John, *C. E.*; W. H. Beynroth, *Sec. and Treas.*; Wm. Mahl, *Auditor*.

All worthy and experienced gentlemen, as the report we have abstracted so freely from, unquestionably shows.

Southern Railroad.

We find in the Cincinnati *Commercial*, the following letter from Col. GAW, the Engineer of the Chattanooga & Cincinnati Railroad; we are glad to see that the projectors of this important enterprise are so much encouraged. Upon the completion of this road and the extension of the Kentucky Central road to the Tennessee State line, Cincinnati will be placed in direct connection with Eastern Tennessee, Georgia and Alabama. Hurry up the work.

OFFICE CHIEF ENGINEER
CHATTANOOGA AND CINCINNATI RAILROAD,
CHATTANOOGA, TENN., Sep. 26, 1868.

J. W. Yardley, Esq., Cincinnati, Ohio:

DEAR SIR—I regret that you are unable to be present, as one of the directors of our Chattanooga and Cincinnati Railroad, at our meeting, shortly to be held. Steps are to be taken on that occasion which will inevitably result in the completion of our road, provided the people of Cincinnati will give us the assurance that they will meet us at the end of our survey.

The State of Alabama has appropriated \$16,500 per mile to the Wills Valley Railroad, our most important connection, which, with other aid that that road is now certain to obtain, will insure its completion, at least to Gadsden, as soon as the work can be surveyed and let out to contract. A similar amount has been appropriated to the Northeastern & Southwestern Railroad, which insures a direct connection with New Orleans.

This will necessitate the construction of our road, if the people of Cincinnati are desirous, as they think they are, of putting themselves in the way to obtain their share of the Southern trade.

As for our section of the Cincinnati line, running from this city to the Kentucky State line, as surveyed by me in 1867, I may say that its completion is a moral certainty, provided the people of Cincinnati will agree to do their part. Favorable negotiations are now in progress with Eastern capitalists, who are anxious to become connected with this line of road immediately. They have ample means to accomplish the work, and the people of Cincinnati may rest assured that our share of the work will be done, if they will do theirs.

As you are aware, some \$10,000 have been already expended by our company upon the preliminary surveys, and agents have secured much of the right of way, while I believe that the

whole of it can be easily secured as a gift. Large donations of land have already been made, and I have no doubt that more can easily be secured. Capitalists have already located on this line, in anticipation of its speedy construction, and in Roane County have erected an extensive blast furnace, and have opened several coal mines.

All these points have not, of course, been lost upon the intelligent capitalists with whom we are now in negotiation.

A line like ours, running for its whole distance from this city to the Kentucky State line, through and in close proximity to inexhaustible supplies of coal, iron, and other valuable minerals, can not long remain undeveloped, especially when we consider that by its completion it places Cincinnati in communication with the heart of the South, and with a system of railways penetrating every Southern State.

Trusting that you will be able to make such representation of these facts to your friends in Cincinnati as will convince them of our sincerity in the work, I remain, very truly, your friend.

WILLIAM B. GAW.

Chief Engineer Chattanooga and Cincinnati Railroad.

Railroad South.

We extract the following from a report upon the Memphis & Selma Railroad, by General Forrest, President *pro tem*.

"The people from here to Selma are in favor of a direct railroad connection with Memphis. They believe it will offer a good market for their cotton and other products; and so thinking they will assist, some with money, some with half, and some with a third or forth of their lands. Very many gentlemen will be prevented from liberal aid by their embarrassed condition.

From the best information which could be obtained in the absence of a survey, it is about two hundred and ninety miles from Memphis to Selma. The route, taken as a whole, is remarkably favorable for the construction of a railroad.

There are no mountains, or even high hills to tunnel; no rock cutting, except the soft limestone in Alabama, and no large streams to bridge. The Road, for its whole distance, before the war was regarded as the richest planting country in the South. There is still the rich soil, opened plantations and settled country.

The people of Mississippi and Alabama are rapidly coming to the conclusion that planting on a large scale, as formerly, will not do. That it is better to divide the country on both sides of the road in small parcels, say forty, sixty, eighty and one hundred acre tracts; that it is better to subscribe a portion of this to aid in building the road, and by so doing invite an industrious population to settle on these lands, and aid in reviving the prosperity of the country, and thus making that which is retained much more valuable than the whole.

On the 29th ultimo we addressed an assemblage of some 1,200 people at Carrollton, Alabama, composed of citizens from Pickens, Tuscaloosa, Eutaw, Greensboro, and other points along the line, and it was manifest that they were all very anxious to build the road; the expression of interest in the enterprise, and a desire to open trade with Memphis was very earnest. This county is among the

wealthiest in the State. It produces 12,000 bales of cotton yearly, the greater portion of which will find its way to Memphis when the road is built.

* * * * *

The route of the road being considered favorable for construction, by those better informed on such questions than I am, it is estimated that the local work on this line of road for grading, bridging, trestling and cross ties will not exceed a cost of \$10,000 per mile—290 miles, \$2,900,000. To do the local work we must rely mainly on cash and land subscriptions.

We may reasonably calculate that the people interested on each side of the road, for five miles, will subscribe one-quarter of their lands. Some will subscribe one-half, some one-third, and some one-fourth, and these will make up for the deficiency of those who cannot subscribe. One-quarter of the land, ten miles wide for 290 miles, will give a land subscription of 464,000 acres.

This, at \$5 per acre.....	\$2,320,000
State aid from Alabama for 120 miles, at \$12,000 per mile, gives \$1,440,000 in bonds, at 70 cents. 1,008,000	
Memphis and Shelby county subscription.....	350,000
State aid from Tennessee for 20 miles gives \$200,000 in bonds, at 70 cents.....	140,000
Cash subscriptions between Memphis and Selma.....	150,000
Selma subscriptions, including the Selma branch road.....	150,000
Aberdeen, \$75,000 in bonds.....	50,000
	\$4,168,000

If in executing the bonds a sinking fund is created to pay principal, as well as interest, this will give assurance of final payment, and can be relied on as efficient means to aid in building this road. And now, by issuing first mortgage bonds, this would give us ample means to complete the road, say 290 miles at \$20,000 per mile, making an aggregate of \$5,800,000, leaving a debt of only \$1,632,000, or about \$5,600 per mile as a bonded debt.

* * * * *

The corporators will meet at Okolona on the 9th of November next, for the purpose of permanent organization, and I respectfully recommend that the citizens of Memphis and Shelby county take action at an early day upon the matter of subscription, that they may be represented in that Convention, and be able to elect such directors as in their judgment will best advance this great enterprise. I would further recommend that some steps be taken by the citizens of Memphis and those along the line of the road, to raise the money to continue Major Merriwether on the survey to Selma, as it is important that the general route of the road should be indicated to better enable us to obtain the land subscriptions. I am satisfied, from all that I have seen, that if the people of Memphis and Shelby county will come forward as liberally with their subscriptions as those of Mississippi and Alabama, the road will be built at an early day. All of which is respectfully submitted.

N. B. FORREST.

President *pro tem*.

☞ A recent English improvement in safety valves, is said to not only allow of the escape of steam when the limit of pressure is reached, but when the water in the boiler gets too low, it opens a valve and floods the fires with water.

Pacific Railroad Grants.

The October number of Putnam's Magazine has an article on Pacific Railroad Grants, in which the writer urges the necessity of a Northern and Southern Pacific Railroad, in addition to the Central line now being built, beside many branch lines. For these he

thinks the General Government should loan its bonds, as it has done for the Union and Central Pacific Railroads. The following table exhibits the different roads of the proposed system:

COMPANY.	ROUTE AND TERMINI OF LINE.	LENGTH	RATE.	TOTAL AID.
Northern Pacific.....	Lake Superior to Puget Sound	1,700	\$20,000	\$34,000,000
San Joaquin & Southern	San Francisco to Albuquerque.....	1,000	20,000	20,000,000
Oregon Branch.....	Portland to Humboldt Hive.....	400	20,000	8,000,000
Montana Branch.....	Virginia to Salt Lake.....	250	20,000	5,000,000
Kansas Branch, E. D.....	Fort Wallace to Albuquerque.....	500	10,000	5,000,000
South Pacific.....	Springfield, Mo., to Albuquerque via Fort Gibson	1,000	10,000	10,000,000
Memphis & Pacific.....	Little Rock to Fort Gibson.....	300	10,000	3,000,000
Cairo & Fulton.....	Little Rock to Tyler, Texas.....	400	10,000	4,000,000
Lawrence & Galveston.	Houston to Texas.....	400	10,000	4,000,000
New Orleans & Santa Fe	Shreveport to Albuquerque.....	1,000	10,000	10,000,000
Total		6,950		\$103,000,000

"Or a total," the writer adds, "of 7,000 miles of railroad, upon which the Government is asked to assume an annual interest charge which could not exceed \$6,500,000 per annum, and which might be reduced, in the course of a few years, to nothing. The rate per mile has been placed lower than the existing ratio for the lines now building, as it is claimed, for each and all of the new lines, that they do

not have to cross mountainous country. These sums of \$20,000 and \$10,000 per mile are a trifle under the probable cost of the lines; but, as under the existing law, first mortgage bonds could be issued for an equal sum, there would probably be no difficulty about raising from private hands the sum sufficient to carry them through."

Blue Ridge Railroad.

An act to authorize additional aid to the Blue Ridge Railroad Company in South Carolina.

WHEREAS, The General Assembly of the State of South Carolina, by an act passed the Twenty-First day of December, in the year of our Lord one thousand eight hundred and fifty-four, and entitled "An Act to authorize aid to the Blue Ridge Railroad Company in South Carolina," provided "that the faith and funds of the State of South Carolina be, and the same are hereby pledged to secure the punctual payment of any contracts which shall be made for borrowing money by the Blue Ridge Railroad Company in South Carolina," from any person or persons, company or companies, corporation or corporations, to any amount not exceeding one million of dollars, either in the United States or Europe; and when such contracts shall be made by bond or bonds, signed by the President of the Company, under its seal, and countersigned by the Secretary or Treasurer thereof, it shall be the duty of the Comptroller General to endorse thereon that the faith and funds of the State are pledged to the faithful performance of said contract or contracts, as it respects the punctual payment both of the principal and interest, according to the terms of said contract or contracts; *Provided*, That certain conditions particularly recited in Section 7 of said Act be first executed, and the said Blue Ridge Railroad Company in South Carolina secured the said endorsement by a mortgage of all their property in the States of South Carolina, Georgia, North Carolina and Tennessee, duly executed and recorded." And whereas, the Comptroller General of the State has not endorsed any of the bonds issued by the said Blue Ridge Railroad Company of South Carolina, under the authority of said Act; and whereas, the conditions imposed upon said endorsement by said Section 7 have become impossible and injudicious, while the necessity of the completion of said Road has

become more urgent in the interests of the State. Therefore,

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of South Carolina, now met and sitting in General Assembly, and by authority of the same*, Without reference to the said provisos and conditions, whenever any contract or contracts may be made by the President of the said Company, under its seal, and as provided by said Act, and not exceeding one million of dollars, it shall be the duty of the Comptroller General to endorse thereon that the faith and funds of the State are pledged to the faithful performance of the said contract or contracts, as respects the punctual payment both of the principal and interest, according to the terms of the said contract or contracts; *Provided*, That so much of said issue as may be necessary, not exceeding three hundred thousand dollars, shall be applied to the redemption of the present bonded debt of the said Company.

SECTION 2. The faith and funds of the State of South Carolina be, and the same are hereby pledged to secure the punctual payment of any contracts which shall be made by the Blue Ridge Railroad Company in South Carolina, from any person or persons, corporation or corporations, to an additional amount, not exceeding three millions of dollars, either in the United States or Europe; and when such contracts shall be made by bond or bonds, signed by the President of the said Company, under its seal, and countersigned by the Secretary or Treasurer thereof, it shall be the duty of the Comptroller General of this State to endorse thereon that the faith and funds of the State of South Carolina are pledged to the faithful performance of the said contract or contracts, as it respects the punctual payment of both principal and interest, according to the terms of said contract or contracts; *Provided*, That the interest made payable thereon shall not exceed seven per cent. per annum in quarterly or half yearly payments; and that as soon as the Comptroller General shall have made any such endorse-

ment, or any such contract, the whole estate, property and funds in the States of South Carolina, Georgia, North Carolina and Tennessee, which the said Company may then possess, or shall afterwards acquire, shall thenceforth stand pledged and mortgaged to the State, without any further act or deed on the part of the Company, for the faithful and punctual performance on the part of said Company, of such contract, in priority and preference of any other debt which the said Company may thereafter create or incur. *Provided further*, That the said bonds, or any part thereof, shall not be used, unless upon the express condition that, upon application to the Congress of the United States, or to private capitalists, the amount of three millions of dollars in currency, or so much of that sum as may be necessary, shall be furnished in exchange, or upon security of said bonds.

SECTION 3. The said Company shall have the right to increase the Board of Directors to fifteen members, of which Board the Governor of the State shall be *ex officio* a member; that there shall be an additional officer, to be known as Vice President, whose duties and salary shall be prescribed by the Board; and that in all future meetings of the Stockholders of said Company, the Governor of the State is hereby authorized to represent the stock of the State, either in person, or by the appointment of proxies.

SECTION 4. The Governor of the State is hereby authorized to advance to the said Company twenty thousand dollars from the Treasury of the State, to repair and keep in working condition the said Road, if such amount should be necessary in his opinion.

SECTION 5. *Be it further enacted*, That all provisions of the charter of the Blue Ridge Railroad Company, and all Acts, or parts of Acts, inconsistent with this Act, be, and the same are hereby repealed.

In the Senate-House, the 15th day of September, in the year of our Lord one thousand eight hundred and sixty eight.

L. BOOZER.

President of the Senate.

FRANKLIN J. MOSES, Jr.,

Speaker House of Representatives

Approved Sept. 16th, 1868.

ROBERT K. SCOTT,

Governor.

SECRETARY OF STATE'S OFFICE, }
COLUMBIA, S. C., September 18, 1868. }

I, F. L. Cardozo, Secretary of State of South Carolina, hereby certify that the above written instrument of writing is a correct copy of "An Act to authorize additional aid to the Blue Ridge Railroad Company in South Carolina," on file in this office.

Given under my hand and the seal of the State, this the 18th day of September, 1868.

F. L. CARDOZO,
Sec. State S. C.

Herapath's *Journal* states that the stoppage on the Mont Cenis line appears to have been occasioned by the melting of snow on the heights, causing a land slip, which carried away a portion of the line and stopped the passage of trains for a time. Nothing has transpired to throw any doubt on the principle of Fell's railway or as to the solidity with which the road has been laid down. Just the same mishap has befallen the other passes over the Alps.

Our Southern Connections.

From the Western Railroad Gazette, Chicago, Oct. 3d.

Cincinnati is now struggling to secure the construction of a series of railroads, which may be almost as important to Chicago as to the more Southern city. These are the lines from Danville to Knoxville, and the Blue Ridge Railroad, from Knoxville to the northwestern terminus of the South Carolina Railroad, which will give a short connection from Cincinnati to Charleston and to Savannah; and another line from Danville more directly southward, which will open communication to Pensacola. The latter line is only a part of one of the favorite projects of Cincinnatians, the Mackinaw and Pensacola Railroad, a line which would be 1064 miles long, one of the longest north and south routes in the country, though the completion of the Peninsular Division of the Northwestern Railway from Fort Howard to Escanaba will give a line from New Orleans to Marquette, 1,285 miles. But is only the southern part of this line which concerns us. At present we have direct connections to only two Southern ports—New Orleans and Mobile. The distance to Pensacola is almost precisely the same as that to Mobile—a point on the Gulf half way between them being due south of Chicago. There is even now railroad communication to Pensacola, but it is circuitous. The completion of a line from Decatur to Selma, Ala., and of a line south from Selma will give a very direct connection to Pensacola by way of Louisville, about 900 miles long. But the most important connections for Chicago as well as Cincinnati, are those with Savannah and Charleston, which will be secured by the construction of the Danville & Knoxville and the Blue Ridge Railroads. They will furnish a channel for a great trade which now in great part takes a circuitous course by way of New York. Chicago will then be as near to Savannah as to New York, and thus a new outlet will be afforded to our great and growing provision trade. We would have the choice between the routes by Louisville and Cincinnati, the route by Louisville being a few miles the shortest.

The Cincinnati Railroad.

From the Daily Union, Chattanooga, Tenn. Sept. 30.

We suppose that many of the citizens of Chattanooga have lost confidence in the speedy completion of this grand link of our railway connections, although they have not ceased to look with hope to its ultimate construction. We believe they are nearer the consummation of their wishes in that respect than they have any idea of.

It is obvious to every one that the construction of the Wills Valley Railroad, from Wauhatchie, 4 miles from this city on the Nashville and Chattanooga Railroad, to Gadsden, and of the Northeast and Southwest road, from Gadsden to Meridian via Elyton, by making a direct communication with New Orleans and Mobile, must necessitate a more direct line than now exists from Cincinnati to this point, unless the people of Cincinnati are willing to allow Louisville to monopolize the Southern trade.

The Legislature of Alabama has passed a bill which is now a law, granting \$16,500 per mile to the Wills Valley Railroad, (to the Tennessee line,) and to the Northeast and Southwest Railroad, and as soon as the proceeds of the grant are realized work will be commenced upon their construction. The

additional amount required is to be raised by stock subscriptions, and first mortgage bonds. It is hoped that the lands donated by the United States to these roads when their construction was first conceived, some ten years ago, and which Congress about a year ago revoked, will be restored to them, although no dependence is placed by the companies in this hope.

At any rate their construction is now a fixed fact, and it behooves the people of Cincinnati to make some effort to secure a direct connection with this important avenue to the Southern trade.

So far as that part of the line is concerned in which Chattanooga is immediately interested, extending from this city to the Kentucky State line, as is known, a company is organized for its construction, known as the Chattanooga and Cincinnati Railroad, which has a charter satisfactory in most respects, has received a grant from the Legislature of Tennessee for \$10,000 per mile under the usual conditions, and has made a survey of the line under the efficient direction of Col. Gaw, developing not only the existence of unusual facilities for its construction, but also of vast deposits of coal, iron and other minerals only waiting for transportation to add to the wealth of the country.

Cincinnati has also made a preliminary survey of her share of the line, and is, we believe, ready and willing to commence its construction when assured of the co-operation of Chattanooga. This co-operation is now ready to be extended. Negotiations are now pending upon terms satisfactory to the railroad corporation for the construction of the road to the Kentucky line. The other parties to the negotiations are wealthy and responsible, and we have little doubt that the road will be put under contract in less than ten months from this date, thus leaving the responsibility of failing to form a direct connection with the Southern trade, with the people of Cincinnati, whose perception of their own interests will speedily compel the construction of the entire road.

Mississippi River Railway.

The interests of this scheme are in the hands of energetic men, who are pushing them with such vigor as reminds us of the efforts of our successful Northern railroad builders.

The Covington *Record*, has the following article which speaks well:

We are pleased to learn that the friends of the Mississippi Railway, in Shelby county, are taking active interest in the road, sufficient to assure us of a determination to know what has become of its prospects, even if no more can be done. We are informed that at an informal meeting of a few gentlemen, held on the 5th inst., at Remberton, midway between Memphis and the line of Shelby and Tipton counties, for the purpose of discussing their interest in this matter, it was resolved to send a committee of three to confer with Mr. A. S. Mitchell, the supposed President of the road, for the purpose of obtaining from him such information as may be relevant to its condition and its hopes and prospects. The members of this committee, we are told, received the warmest encouragement in obtaining, as they were instructed to do, the signatures of a few earnest men in each neighborhood in the belt of ten miles wide, the route would probably be selected, as con-

curing in the action of this meeting. At an early day this committee will call a meeting of parties interested, to receive its report and take such further action as may seem advised by the premises.

There is no doubt that the landholders, from Memphis to the Tipton line, feeling a certain proprietorship in the charter for this road, granted for their benefit and so imperatively demanded by their large ownership of the fertile lands which now only encumber them, will, without exception, participate in this proposed meeting, either in person or through delegates from each little circle of neighbors, and that the adoption of some one of the many tested and perfected schemes for acquiring transportation and population by a safe and paying disposition of the surplusage of the now expensive lands by such as have an excess of acres and a dearth of dollars, will be advocated and the road started toward its accomplishment, or dropped as a hopeless failure.

We feel that no apology is required for our suggesting that similar action be taken in this and in the upper counties, and that we also, by counties, ask for an exhibit of the labors of the Board which was created here early in 1866. That a few friends of the road at once ride the belt through which it should pass and effect an immediate assemblage of landholders, or those interested, for the purpose of selecting say three delegates, informed of the sentiment along the route, and that these delegates be instructed to confer with each other by counties and with Shelby county, for the purpose of uniting in a joint meeting which Shelby will unquestionably call at an early day and at some suitable point, for the interchange of views on this common interest and for securing joint action in furthering them.

We suggest Saturday, October 26, as a suitable day for these preliminary meetings for the selection of delegates, and will freely give our time and columns to the advancement of this great necessity of our people, so surely, unless we exert ourselves now, passing toward an impossibility.

Production of Artificial Light.

Although artificial light, or rather the light arising from combustion, has of course been known since the time when the bivouac fires of the earliest nomads blazed on the plains of Asia, its production, until within the last fifty years, called forth but little investigation, and secured but little application of scientific truths. During the past half century, however, the subject has been continually increasing in importance, has been productive of hundreds of inventions, and at the present time stands second to none in its bearings upon the comforts and conveniences of life, to say nothing of its relation to marine and military pursuits, as in light houses and for signal purposes, or to industrial operations, as, for instance, in the lighting of mines, etc.

Although science has within a comparatively recent period given birth to means, like the magnesium flame and the light developed by electrical action, which may be specially applicable to particular purposes of illumination, yet the latter for most purposes, at the present time at least, must depend upon the combustion of liquid or gaseous hydrocarbons, and there are few problems more worthy of attention or giving promise of greater value than that of ascertaining the precise conditions under which the most intense illuminating power can be derived from the

burning of the different varieties of materials of the character indicated

In the combustion of hydro-carbon oils for lighting purposes, two essentials, mutually dependent upon each other, are requisite. These are the uniform and continuous supply of sufficient air to the flame to insure the combustion of all the oil that may pass thereto, and the uniform supply of oil to the flame in such quantities as may be required to give out the degree of light required. Both of these conditions were only imperfectly fulfilled in the old fashioned lamps which operated on substantially the same principle as the skulls of animals fitted with wicks, which are believed to have constituted the first lamps ever made, or the stone lamps, differing from these last only in shape and material, which are found in the ruins of the buried cities of Assyria, and which find their counterpart in the dish-shaped lamps now used by the Esquimaux. It was not until the year 1784, that a means of effectually supplying the flame with the oxygen requisite to perfect combustion was obtained. This was supplied by Argand's invention of the hollow wick which admitted air to the center of the flame, and of the chimney to provide a steady draught to carry off the gaseous products of combustion and insure a continuous flow of air to the exterior of the burner. The other desideratum, of insuring the full supply of oil required, was met a few years later by Carcel's plan of forcing the oil by clock work through tubes to the wick, thus keeping the latter saturated. A similar result was secured by another French invention termed a "moderator," in which the oil was caused to flow to the top of the wick through the agency of a piston operated by a spiral spring. Notwithstanding the excellent results secured by these devices their comparatively great cost and liability to get out of repair have prevented them from coming into popular favor, while in the lamps now generally in use for burning the lighter hydro-carbons the tubular wick of Argand is replaced by one of a simple flat form, at the same time that inventors without number are striving to devise a means of dispensing with the chimney, an end which has been sought by various arrangements of air-passages to supply air to the flame in regular and continuous currents. There are, in addition to these, several classes of apparatus by which the desired object can be obtained in a higher degree, although these, from the somewhat complex nature of their adjuncts, can scarcely be called lamps in the ordinary acceptation of the term, although perfectly germane to our purpose. In some of these apparatus, the liquid hydro-carbon is converted into a gas before reaching the burner by the heat of the flame itself applied to a metallic conductor, a method capable of use with any oil capable of being volatilized at a moderate temperature. In others, as with benzole and the light naphthas, damp air is simply passed through or brought in contact with the hydro-carbon, and becoming surcharged therewith may be burned like common gas, while in others the liquid passes up the wick in the usual manner to the flame; but currents of air are caused to pass continuously to the latter by suitable mechanism or devices, and thus insure the combustion of particles of the hydro-carbons which would otherwise pass off in smoke, to the great detriment of the brilliancy of the flame. It should be kept in mind that each of the methods herein last considered are applicable only to the light hydro-carbons known as coal or petroleum oils. The sperm, lard, rape, and similar oils having practically gone

out of use, and there being, indeed, few or no appliances better fitted to insure their maximum light-giving power, in the few instances in which they are now employed, than the Argand and Carcel methods.

As having a direct relation to the subject in hand may be mentioned some recent experiments made by Prof. Frankland, and set forth by him in a paper lately read before the British Association, from which it appears that the brilliancy of a flame depends in a great measure upon the density of the atmosphere in which the combustion occurs. Should this be established as a verity, it is not impossible that some practical application of the idea may be made which will add materially to the efficiency of some or all of the ordinary means of producing artificial light.

The True Scope of Engineering.

"Much of the misunderstanding in the world," says Abercrombie, "arises from the confusion of terms;" and there is probably no term in the language whose true meaning is more obscure and confused, even in the minds of those skilled in the technical professions, than the word "engineering." Those habits of thought lead them to take a broad and comprehensive view of mechanical art and its adjunctive sciences are naturally disposed to employ the title as including every branch of constructive effort, however common place; while others, especially those who have been educated and trained to practice in the higher walks of mechanical science, are inclined to hold that engineering constitutes a distinct department of human knowledge, marked by well defined boundaries and excluding much from its realm of popular interest and practical importance. If the *esprit de corps* and spirit of exclusiveness which is characteristic, very often in too high a degree, of other professions, were fully carried out in the one under consideration, it is not improbable that the advocates of the definition last indicated would be able to advance the strongest arguments and secure the popular belief in their favor. Yet it can scarcely be denied that the decided tendency of the times for more than a generation past has been to popularize every progressive step and principle that relates to the arts of fabrication and construction, to judge from the aptness and success of the application of these principles rather than from the acquirements of the person making them, and to include in the ranks of the profession many who, however successful in their undertakings, would never have received the designation of "engineer" if their claim to the title had been founded on their proficiency in the knowledge of the schools. This tendency, in our own country at least, may be justly said to have become so strong, and to have borne such fruit in the development of improved appliances to meet the requirements of every industrial pursuit and the wants and necessities of society in every phase, that the term engineering properly includes within its scope every department in which the inventive and constructive powers of man are employed to ameliorate the condition of the race; whether it be in the manufacture of the engine that furnishes the motive power of factory, or car, or steamer, the structure of the pavement under his feet, or the laying of the pipes and mains that supply his dwelling with gas or water.

The extension of the meaning of the term, instead of indicating any lowering of the standard of engineering, is in reality an index of its great development in all that makes it

useful to mankind. Instead of endeavoring to restrict its scope as a recognized profession by old time prejudices and opinions, it would be better to favor the extension thereof still further and its division into specialties and departments now unknown, so that projectors and practical men might the more easily appreciate the bearing of one branch upon another and understand the degree of excellence attainable in each. It is not difficult to imagine that by this means engineering might be made to assume the proportions of a noble and symmetrical system of practical science, embracing in its sphere every means by which the crude materials of earth are shaped and molded to meet the wants of man.

ANOTHER NEW POWDER.—A San Francisco paper makes mention of a new explosive compound, called by the inventor, who is a resident of that city, "Hafenegger Powder." It is thought, from experiments which have been made, that there is scarcely a question but that it will prove a valuable explosive for mining and other purposes. One eighth of an ounce of the Hafenegger powder was recently placed under a ten-pound cannon ball, which was set upon a piece of cast iron, into which a slight indentation had been made to receive the powder, and upon being lighted with a fuse, blew the ball some fifteen feet into the air. Seven ounces of ordinary gunpowder were used in the same manner, and its explosion simply rolled the ball a few inches from the position in which it had been placed. Two ounces of the new powder, put in a ball with a hole running through the centre, and this set upon a piece of quarter-inch boiler iron, fired in the open air, tore a hole through the iron large enough to admit a man's foot and sent the ball a considerable distance.

ROAD-MAKING BY STEAM.—A London paper says: Last year we called attention to the rapidity with which the roads in St. James' Park were being formed by the aid of a powerful steam roller. Our readers have now an opportunity of seeing the process in operation on an improved plan in the same place, and some of the metropolitan parochial authorities may study the system with advantage. The road is first prepared by being loosened with pickaxes, then covered with ordinary broken granite; above this a dressing of sand is laid; the whole is then well watered. At four o'clock each morning an immense roller is propelled by steam slowly over the prepared surface. It exerts a pressure of twenty eight tons, and the result is that in an unusually short time a firm and compact macadamized road is formed so smoothly that the lightest vehicle may be immediately driven over it without fear of injuring the springs. The engine works almost without noise, and appears to consume nearly all its own smoke. It has the appearance of a large railway break van. The work is continued daily from four A. M. to four P. M., and excites considerable interest.

CORRECTION.—In the letter of Judge Nash, upon the Chesapeake and Ohio Railroad, in our last number, the types say the mouth of the great Kanawha is 60 miles south of Cincinnati; they ought to say 16 miles instead of 60. And the name of the engineer mentioned is not Mr. Shaw, but Mr. Shaw.

We thank the Judge for calling our attention to these mistakes.

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
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10	720	115	20	700	120

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Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

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Orders should always state the exact width of the Tickets for which Cases are desired.

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D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
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FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	4,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUC, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1865, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front to East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:42 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

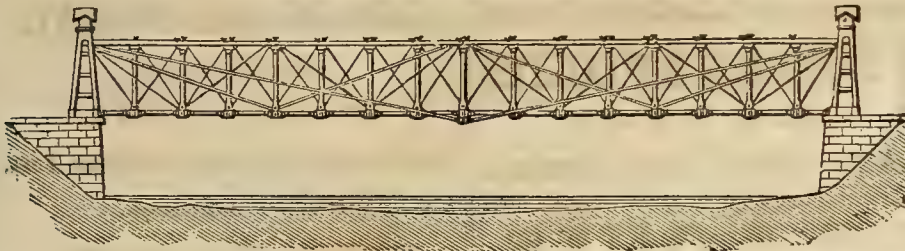
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philade. Phila, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION!

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail..	7 00 A. M.	5 25 P. M.
Richmond & Chicago..	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond..	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada..	6 00 P. M.	10 30 A. M.
Hamilton Accommodation..		6 45 A. M.
Richmond & Chicago..	7 00 P. M.	9 20 A. M.
Hamilton Accommodation..	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots. East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI..	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR..	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES..	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN..	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL..	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS..	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati..	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

G. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.**Best Route to St. Louis and Chicago****INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD**

Great Through Passenger Route from CINCINNATI to

**ST. LOUIS,
CAIRO,
CHICAGO,**Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West, North west and South-west.**5 THROUGH TRAINS DAILY,**
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express..	7.00 a.m.	10.50 p.m.
Indianapolis and Cairo Express.....	7.00 a.m.	2.30 a.m.
Cairo and St. Louis Express.....	2.20 p.m.	4.08 p.m.
Springfield, Quincy and St. Joseph Express.....	2.20 p.m.	4.08 p.m.
Chicago Lightning Express.....	7.15 p.m.	11.30 a.m.
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 p.m.	6.15 a.m.

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 a.m.	8.35 a.m.
Connersville and Cambridge City.....	4.00 p.m.	9.15 a.m.
Lawrenceburg.....	4.45 p.m.	2.20 p.m.

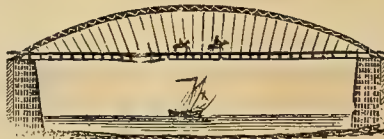
Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.**MOSELEY'S WROUGHT IRON ARCH****BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, Constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

Successor to

T. McDANIEL & HORNER,

**Locomotive and Railroad,****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Elgine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

**THE SCHENECTADY
LOCOMOTIVE WORKS,**

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

**COAL OR WOOD BURNING
LOCOMOTIVE ENGINES**

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.**PASCAL IRON WORKS.**

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 20 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.**Philadelphia, Wilmington & Baltimore****RAILROAD!****FOUR PASSENGER TRAINS DAILY**TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, }
T. WRIGHTSON, } Editors

CINCINNATI:
THURSDAY, OCTOBER 15, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1.00
" " per month..... 3.00
" " six months..... 12.00
" " per annum..... 20.00
" " column, single insertion..... 5.00
" " per month..... 10.00
" " six months..... 40.00
" " per annum..... 80.00
" " page, single insertion..... 75.00
" " per month..... 25.00
" " six months..... 110.00
" " per annum..... 200.00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.
DEPART. ARRIVE.
Morning Express 7:00 P. M. 6:10 A. M.
Night Express..... 6:00 A. M. 5:00 P. M.

LITTLE MIAMI.

Lightning Express..... 7:00 A. M. 4:35 P. M.
Express Mail..... 8:30 A. M.
Columbus Accommodation..... 3:50 P. M. 10:20 A. M.
Morrow Accommodation..... 5:20 P. M. 8:00 A. M.
Lightning Express..... 8:00 P. M. 10:35 P. M.
Night Express..... 6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express..... 7:40 A. M. 7:25 P. M.
Express Mail..... 9:30 A. M. 5:25 A. M.
New York Express..... 8:00 P. M. 8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City

Night Express..... 12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail..... 7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail..... 7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation..... 3:55 P. M. 10:00 A. M.
Loveland Accommodation..... 5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada..... 6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada..... 6:30 P. M. 6:10 A. M.
Richmond and Chicago Mail..... 7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp..... 5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City..... 6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City..... 5:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago..... 3:00 P. M. 5:20 P. M.
Bellefontaine and Sandusky..... 6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky..... 3:00 P. M. 10:30 A. M.
Hamilton Accommodation..... 6:30 P. M. 7:55 A. M.
Dayton Accommodation..... 6:30 P. M. 10:30 A. M.
Dayton Express..... 5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express 7:20 A. M. 7:05 P. M.
Night Express 5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connersville, Cambridge City and Indianapolis Mail..... 6:15 A. M. 10:20 A. M.
Connersville, Cambridge City and Indianapolis Express..... 5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express..... 7:00 A. M. 6:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville..... 7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex..... 5:45 P. M. 6:10 A. M.
Louisville Special Train..... 3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail..... 7:00 A. M. 4:10 P. M.
Caboose Accommodation..... 3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.

Express..... 6:00 A. M. 6:00 P. M.
Lexington Express..... 2:00 P. M. 10:50 A. M.
Falmouth Accommodation..... 6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.

Express Mail..... 7:00 A. M. 6:15 A. M.
Fast Express..... 8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express..... 8:00 P. M. 10:35 A. M.

Interests of Cincinnati

In Regard to Southern Trade & Railroads.

We are not yet wearied in well-doing; at least, in what we conceive to be well-doing. So, we want to say a few words more on what we have said so many upon,—the Southern Railroad interests of Cincinnati. The elections are over, at least, those which are decisive, and it is to be hoped that there will now be given a serious and earnest attention to the interests of Cincinnati. For, we assure every reader, that *it is needed*. What does the election in Cincinnati disclose? It discloses two facts: 1. That there is an *increase* of voters to be seen; but, 2. More important, that that increase is nothing like the increase which Cincinnati *ought* to have had, and nothing like what it *would* have had, if she could have had her *legitimate trade* for the last ten years. The vote of Hamilton County at the present election, is in round numbers 44,000. Allowing the ratio of voters to population (as in large cities containing large populations), to be 7,—the population of Hamilton County in October, 1868, was only 308,000, (which we suppose to be about the fact,) and of these 220,000 was in the city of Cincinnati. Now, we say, this is less by 100,000 than it would have been, had Cincinnati fifteen years ago, done what she might easily have done, connected herself with a direct railroad to Tennessee, and a bridge over the Ohio. If it was desirable at all to increase the trade and population of Cincinnati, then nothing should have prevented these enterprises. They were plainly and palpably for the best interests of Cincinnati, and it was plain enough that every man of every class and party should have aided them. Let us look at the growth of Cincinnati, and see when she grew, and when she did not grow. Perhaps something can be learned from this exhibit:

Population of Cincinnati in 1830.....	24,831
" " " " 1840.....	46,338
" " " " 1850.....	115,436
" " " " 1860.....	161,044
" " " " 1868.....	220,000

This is a large increase; but, let us see how and when it was:

Increase from 1830 to 1840.....	90 per cent.
" " 1840 to 1850.....	150 "
" " 1850 to 1860.....	40 "
" " 1860 to 1868.....	36 "

The *annual* increase at these periods were, 9, 15, 4, 4½. Now, from 1830 to 1840, the railroads were began, and fully under way; and from 1840 to 1850, they were finished, and connected Cincinnati with all places on the *north* side of the Ohio. Now, it is true, that the south side of the Ohio is not so populous nor so rich by any means. Let us suppose then that the influence of railroads there

was only *half* as much, and that Cincinnati from 1850 to 1868, increased only *half* the ratio, from 1840 to 1850, the results would have been:

Population in 1860.....	203,000
" " 1868.....	315,000

This is 95,000 more than we can estimate Cincinnati at now! In our opinion, therefore, it is correct to say, that Cincinnati has lost nearly 100,000 people that she *might* have had, if eighteen years ago she had secured, as she might have done, a Southern Railroad connection, and a bridge over the Ohio. What would have been the influence of that fact on trade, wealth, institutions, and general prosperity? We leave that for others to judge. We only know, that whatever of trade, manufactures, and general prosperity Cincinnati might have gained in that way, she has lost by *inertness and bad policy*. How stands the case now? Very much as it has done for ten years. There is a little stirring up of the sluggish pool, once in a while; but, the dead calm soon comes, and Cincinnati enterprise sleeps on in its dull repose. Cincinnati seems to be destitute of commercial sagacity, and of active public spirit. What will be the consequence? A plain one. Chicago and St. Louis instead of being behind Cincinnati, will be far ahead. Sagacity does exist there, and enterprise is active. All plans of real public improvement are favored. There are leading minds who can see what plans are needed, and move the people to their accomplishment. There is still a little hope, that Cincinnati will not fall totally behind. But, this hope is to be found rather in the action of others, than of itself. We have noticed the Report of the *Blue Ridge Railroad Company*. This road is on the most *direct line* that can be made from the Southern Atlantic to Cincinnati; because it passes almost straight to Charleston, through a Gap in the Blue Ridge, while the railroad in Virginia will be tortuous. But, where will the Blue Ridge Railroad come to? Only to East Tennessee; and where is our Road to East Tennessee? The only consolation the making of this road offers us is, that if we ever get to East Tennessee, it will be the most direct road to the Southern Atlantic. That is a strong inducement, if we could be moved at all; but it amounts to nothing if we don't move. The question then is, whether the interests, the pride, or the public spirit of Cincinnati can be induced to *aid* in making 150 miles of railroad, which is essential to a successful competition with other cities of the West? There is an old adage, that "where there is a *will* there is a *way*." One or two millions of dollars to complete a Southern road would be little felt in Cincinnati; but in fifteen years it would give her fifty millions of dollars, and one hundred thousand people she will not have without it. The merchants and manufacturers can make no investment equal to that. There is another reason for this,

arising out of the political condition of the country. We feel assured, that at the incoming of the next administration, the country will be restored to a real peace; and trade be uninterrupted by political dissensions. Connect this with good crops and reduced taxes, and there is reason to believe that the commerce and industry of the country will rise up to unusual activity. Why should not Cincinnati have her share in that vast development of material interests, which will certainly occur in the South? The moment the South has peace, capital and enterprise will be set to work, and the South will bloom with industry, and fatten on its fruits. What will Cincinnati do to reap her share of the harvests? Has the Cincinnati Chamber of Commerce got any men of broad minds and liberal spirit? If it has, now is the time for them to do a great work for themselves, for the city, and for the country. To them this is a matter of great importance, to us nothing; except the pleasure of seeing the city prosper, by a liberal policy and a sound understanding of its own interests.

Chicago and North-Western Railway.

We are indebted to the *Western Railway Gazette* for the following abstract of the annual report of this great company—the aorta of Chicago—that has done more for that city than all other of her enterprises combined. The truth is, the railroad system of Chicago has a definite policy, a fixedness of purpose and a comprehensiveness of scope, that is entirely wanting in the irregular, broken and disjointed fragments that compose the railroad avenues to and from our city. While our energies have been exhausted in little petty schemes and by-roads, local in their character, each trying to obtain the advantage of and cripple the other, the railroad system of Chicago has laid State after State and Territory after Territory, tributary to its traffic; and wherever, by the absorbing or tapping of a road, the trade of an aspiring rival could be diverted, her now gigantic roads have been made to do the work, and left her “master of the situation.”

The *Gazette* says:

REPORT FOR THE FISCAL YEAR ENDING MAY 31, 1868.

The following is an abstract of the most important facts presented in the annual report of the Chicago and North-western Railway for the year which closed May 31, 1868:

PRESIDENT'S REPORT.

The gross earnings of the company from all sources were as follows:

From passengers	\$3,573,031 47
From freight....	8,266,809 40
From express....	464,405 57
From mail.....	172,605 90
From mis. e'rug's	137,994 12
	<hr/> \$12,614,846 46

The operating expenses, which include large expenditures for permanent improvements as shown in detail in the report of the General Superintendent, hereto annexed, were 59 36 100 per cent. of earnings.....\$7,488,484 04
The taxes were... 385,162 56

Total expenses including taxes, 62 42 100 per cent. 7,873,746 60

Leav'g as am't of net earnings. \$4,741,199 86

From which amount has been paid:

Int. on bonds	\$1,334,439 51
Dividend on Chicago and Milwaukee Railway Stock (not owned by this Company).....	8,438 85
Sinking fund on bonds.....	53,120 00
Rents of leased roads in Iowa.	982,838 99
	<hr/> 2,378,837 45

Surplus of net earnings..... 2,362,362 51

Which is 8 per cent. on the amount of preferred and common stocks outstanding before the recent issue for dividends, and a surplus of \$114,214 27.

The surplus of credit of income account, May 31, 1867, was. 468,224 46

Total..... \$2,830,586 07

From which the Board of Directors on the 14th day of May last declared 10 per cent. dividend on both the preferred and common st'ks, which amounted to 2,810,110 00

Leaving to the credit of income account, May 31, 1868. 20,476 97

The condition of the company on the 31st of May, 1868, inclusive of the dividends recently declared on the preferred and common stocks, was as follows:

Common stock.....	\$14,555,675 61
Preferred stock.....	16,356,287 42
Bonded debt	15,976,000 00
Chicago and Milwaukee Railway Company bonds.....	1,725,400 00
Beloit and Madison Railroad Company bonds	372,000 00
Balance of sundry accounts....	226,264 47
Bal. to credit of income acc't.	20 476 97
	<hr/> \$49,232,104 97

The amount of funded debt has been decreased by the payment of \$275,000 of ten per cent. equipment bonds, which matured on the first of May last.

The aggregate of stocks and bonds as shown in this report, represents the entire cost of this company's works and franchises, including 800 miles of railroad owned by this company, of which thirty miles have double track—its total equipment of engines and cars covering the whole line of 1,153 miles of railroad owned and leased—its permanent outlays and improvements upon the same; its steamboat property, land grants, and large and valuable real estate in the city of Chicago.

In the month of October last, this company entered into an agreement with Messrs. D.

N. Barney and his associates, for the purchase of their interests in the Winona and St. Peter Railroad, extending from Winona, on the Mississippi River, 105 miles westward into the State of Minnesota; and also for the purchase of their interests in the La Crosse, Trempeleau and Prescott Railroad, which was then being constructed from a point opposite the city of Winona, on the east side of the Mississippi River, in the State of Wisconsin, to a junction with the Milwaukee and St. Paul Railway, about three miles east of La Crosse, a distance of twenty-seven miles. Work on the latter route has been prosecuted under the direction of this company.

At about the time of the Winona and St. Peter and the Trempeleau Railroad purchase, this company made arrangements with the St. Paul and Chicago, and the St. Paul and Pacific Railroad Companies, by which the business of their railroads when constructed should be secured to the lines of transportation which at that time should be operated or controlled in the interest of this company, and in consideration of these arrangements, this company loaned the sum of \$68,500, on the security of the stocks of said companies (to be repaid with interest), to aid the St. Paul and Chicago Railway Company in the construction of the first division of its road.

The position and influence of these important lines in the development and control of the valuable and fast increasing traffic of the most populous and productive portions of Eastern and Central Minnesota, and of the country tributary to the valleys of the Upper Mississippi and Minnesota Rivers, and in opening up most direct and natural railway connections by way of Winona, over the La Crosse, Trempeleau and Prescott Railway to La Crosse Junction can not be estimated by present results, but when fully completed they will reach and command new sources of business of the greatest value to the interests of this company. At La Crosse Junction a good and sufficient outlet will be afforded by use of existing lines to both Milwaukee and Chicago, through amicable and mutually advantageous relations which have been established between this company and the Milwaukee and St. Paul Railway Company.

Since the opening of the Iowa Line to the Missouri River in April, 1867, the growth of business on that portion of the road has rapidly increased in every element of local and through traffic; nor is this increase mainly due to the movement of construction materials for the Union Pacific Railroad and its branches, for as large as that transportation has been, it has been done at reduced rates under special arrangements; now about expiring, which were entered into by this company to encourage and expedite that great national work at an early stage of its progress, and which have afforded but small remuneration for profits to this company.

The greater compensation to accrue for this forbearance in rates is to be found in the new business thrown upon our lines by the activity and energy which are stimulated by the extension of the Union Pacific Road, and everywhere pervade the State of Iowa and the Valley of the Missouri River.

The large amount of floating debt which, at the date of the last annual report, was impending over the business of the year just closed, has been fully discharged as it matured from the earnings of the road; and the company, relieved from those obligations, enters upon the present fiscal year unembarrassed in its finances, and with the encouraging prospect that this great property, under

judicious and economical management, will realize such results as will enhance its value, attract capital for permanent and profitable investment, and give to its stockholders fair returns on both classes of stock.

GENERAL SUPERINTENDENT'S REPORT.

Prior to the commencement of the fiscal year just completed, the business of the road had been somewhat limited, owing to the lack of adequate rolling stock and other business facilities. For the past twelve months these necessities have been in a great measure met, and although the enterprise as a whole is far from being fully developed, the year's business affords means for safe deductions from its results, and for approximate estimates of future business.

The gross earnings and the operating expenses of the railway are distributed among the several divisions, as follows:

WISCONSIN DIVISION.

The gross earnings of this division for the last year were...\$3,156,059 79 being a decrease of \$119,463 26 from the previous year.

The operating expenses, including taxes, were \$2,009,173 98, being 63 66 100 per cent. of its gross earnings.

The decrease in the earnings of this division is attributable as well to the partial failure of the grain crop in Wisconsin, as to several other causes which have diverted a portion of the business from this line to other lines of the company.

The Milwaukee and St. Paul and Milwaukee and Prairie du Chien Railways united under one management, caused the diversion for a considerable time to the Milwaukee Division, at Milwaukee, of a large amount of through business from the Upper Mississippi Valley, which had formerly found transportation to Chicago from the junctions at Watertown and Milton over the Wisconsin division.

The operating expenses of this division are 1 24-100 per cent. above the general average for the whole railway.

GALENA DIVISION.

The gross earnings of this division for the year were.....\$4,293,657 81 The operating expenses were... 2,482,706 43 being 57 82-100 per cent. of the gross earnings.

These earnings show an increase over the previous year of \$560,364 45.

The extension of the Iowa line to the Missouri River, and a connection with the Union Pacific Railroad, making the line from Chicago to Clinton a component part of the great through route, has aided materially to increase the receipts of that part of this division.

The operating expenses of this division are 4 60-100 per cent. less than the general average of the whole railway.

IOWA DIVISION.

The gross earnings of this division for the year were.....\$3,415,695 87 showing an increase over the previous year of \$1,808,582 55.

The operating expenses were...\$2,360,961 78 being 69.12 per cent of the gross earnings.

This increase in earnings grows mainly out of the completion of the line to Council Bluffs. It will be observed that the operating expenses of this line are 6.7 per cent. above the general average of the whole railway. These

increased expenses are to be attributed to some extent to damage caused by the great flood in the spring of 1867.

MADISON DIVISION.

The gross earnings of this division were.....\$226,797 91 being an increase of \$26,674 04, mainly from passengers.

The operating expenses were.....\$153,375 12 for the same time being 67.62 per cent. of the gross earnings.

PENINSULA DIVISION.

The gross earnings of this line were.....\$445,023 48 The operating expenses were..... 278,837 00 being 62.65 per cent. of the gross earnings.

The earnings were \$162,499 84 greater than in the previous year.

The anticipations of the projectors of this line have been more than realized in the development of its business which consists mainly in the transportation of iron ore from the mines to the port of Escanaba.

The quantity of ore transported over the line has increased from 38,937 tons in 1865-6, when the road was opened, to 236,185 tons in 1867-8; and the revenue has risen from \$99,456 47 in 1865-6 to \$445,023 48 in 1867-8.

This business will very materially increase during the present year; and the doubt which has been expressed as to whether the ore of the Lake Superior mines would seek this route in preference to that *via* Marquette, has been entirely removed by experience, and a continual increase of the business of the line may be safely depended upon.

MILWAUKEE DIVISION.

The gross earnings of this line for the year were.....\$1,077,617 60 being an increase over the previous year of \$14,453 39.

The operating expenses for the same time have been... 588,592 29 being 54 62-100 per cent. of the earnings.

The details of the business of this line show an increase in both passenger and freight earnings between Chicago and Milwaukee, and from most of the local points on the line.

The operating expenses of the division are 7 80-100 per cent. less than the average of the whole railway.

The ratio of passenger to freight earnings is greater than upon any other of the company's lines, and as a necessary consequence the per centage of operating expenses is less.

The results of the business for the year, relatively considered as they affect the entire railway, or each division of it, are gratifying.

I. The interests of both the stockholders and the community have been greatly promoted by the facilities afforded for massing the rolling stock of all the lines of the company at the points where it was most needed, on either of the lines, at any particular time. The extent of country traversed by your lines is so great that its products do not all seek a market at the same season. The lumber of Fond du Lac and Oshkosh does not require transportation at the time the grain crops of Iowa are pressing for it. The fact that the entire rolling stock of several lines is thus available for any one when needed, greatly increases the value of the property to its owners and to the community.

II. The location of your lines is such that an entire failure of crops along the whole of them is not to be apprehended in any one season. The extent of country they traverse is so great, that it may well happen, as it has heretofore, that a partial or even total failure in one part is more than compensated by an abundant harvest in another. Your company would, therefore, seem to be safe from any such temporary paralysis as a general failure of crops sometimes brings to a single line.

On the whole, it is safe to say, that experience has shown that these lines may be operated together at less expense than as separate organizations, and be made to yield a larger revenue, while serving the public more effectually, and without any increase of cost to them.

No loss of earnings need be anticipated from the completion of a rival line from Chicago to a junction with the Union Pacific. Before that takes place the line will be completed to the Pacific Ocean, and the increased through business may be expected to more than compensate for any loss caused by the division of a portion of it with another line.

There have been transported over the railway during the year 1,711,567 passengers, for an average distance of 51 9 10 miles each, equivalent to the transportation of one passenger 88,807,502 miles.

This large amount of passenger transportation has been performed without the loss of life to a single passenger. Four passengers have been injured, none however, it is believed, permanently, on the Iowa division, in consequence of broken rails during the winter. The passenger business of the Wisconsin, Milwaukee, Peninsula and Madison divisions has been done without injury of any kind to any passenger, and upon the Galena division but one passenger has been injured during the year.

The per centage of operating expenses, exclusive of taxes, was 62 98-100 in 1865, 61 54-100 in 1866, 66 17-100 in 1867, and 59 36 100 in 1868.

The per centage of operating expenses, including taxes, was 6 75-100 in 1865, 67 4-100 in 1866, 69 91-100 in 1867, and 62 42-100 in 1868.

The earnings were 24 14-100 per cent. greater during the year ending May 31, 1868, than during the previous year. The quantity of freight carried was 14 80 100 greater.

The company owns 248 locomotives, 118 first-class and 21 second class passenger cars, 137 caboose and way cars, 107 baggage, mail and express cars, 4 boarding cars for workmen, 4,824 freight cars, and 522 iron ore cars.

The St. Joseph Herald states that the St. Joseph & Council Bluffs road has now been open about four weeks, and is already doing a fair business. Its location upon the bottom lands of the Missouri, the whole distance, gives it a level grade—a straight line mainly—and will enable it to run passenger trains with great speed, and do a large freight business, with great economy.

The Supreme Court of Maine has decided, by a jury verdict, that the bridge of the Portland & Kennebec Railroad, over the Androscoggin river to be a nuisance, on account of obstruction to navigation. The railroad company will appeal the case.

Transit Route to the East.

[From the New York Bulletin]

The competition for the grand prize of Eastern commerce is becoming more spirited and active. Three great nations are engaged in the struggle, and, so far, each of them employs none but legitimate means for the accomplishment of the object. England is in actual possession, and the means by which she hopes to retain the prize is through an admirably organized steam marine that distances all rivalry so far as it goes. France is reaching forward for the prize, and expects to achieve it by means of the Suez Canal. This work has been prosecuted at an enormous cost, with perseverance and sagacity, and the latest accounts indicate that Mr. Lessep's calculations that it would be opened for commerce this fall may be fully realized. In July last, the total quantity of earth that remained to be excavated on the entire line of canal and in the basin and harbor of Suez, was only 74,112,130 cubic metres. On the 16th of August last 47,228,155 cubic metres—more than half had been excavated, leaving only 26,883,975 to be removed. The remaining excavations were probably completed during the latter part of August or early in September, and by this time the construction of locks and the completion of the harbors on both sides of the canal is so far advanced that comparatively little work remains to be accomplished in order to fit the canal for the commerce of the world.

In the United States, the Pacific Railroad will probably be completed next year, and this will open to us no slight proportion of the commerce of the East. That it will become an inviting route for a large portion of the trade of China, Japan, and, to some extent, of the East Indies, not only with the United States but with Europe, there is every reason to anticipate. But three thousand miles of railroad transit is expensive, and can only be sustained by teas, silks and other light and costly goods. It will, therefore, still remain necessary to seek other routes for general merchandise if Americans would aspire to any larger share of Eastern commerce than a mere outside trade. In this view the revival of the plan for a ship canal across the Isthmus of Panama is a matter of the highest national importance.

This subject was recently brought forward in a prominent manner during an interview between President Johnson and General Acosta, the newly credited Minister of Colombia to the United States. The President invited General Acosta to call the attention of his government to the importance of the work, and gave an outline of the facilities for its execution. Two routes have been proposed across the Isthmus. Of these the Darien route seems to be the most economical. The distance from navigable water to navigable water on the Atlantic and Pacific sides is only 34 miles; and the cost is estimated at \$50,000,000. The other line from Panama to Aspinwall Bay is better known, and, perhaps, more popular with Americans. It is 45 miles from shore to shore, and would cost \$80,000,000. Both of these estimates provide for a canal 150 feet wide on the bottom, sloping up to 270 feet on the surface, and 31 feet deep—equal to the capacity of first-class vessels.

In addition to these various means for the transportation of Eastern commerce, the project of a British American Railroad to the Pacific, already described in the *Bulletin*,

meets with increasing attention, both in the New Dominion and in England. English capitalists begin to feel that it may be inexpedient to rely only upon her steam marine for the monopoly of Eastern commerce which is threatened from so many quarters. It is not improbable therefore that the American Pacific Railroad may be obliged to compete with a British Provincial route at no distant time.

The world moves so fast that it is by no means improbable that within the next ten years all the projected routes to the East will have been completed. Of these the Panama Ship Canal is the most important, and offers the largest results. It is peculiarly an American project, and ought to be constructed by American capital and enterprise. It will do for the United States all and more than the Suez Canal will do for France, and at a much less expense. In connection with the Pacific Railroad, it would bring the commerce of the East to our lap. But this work of increased communication with the East in which the most civilized nations of the West are engaged, is one of the grandest features of modern times. Its complete accomplishment will mark the downfall of many of the commercial restrictions that now check the exchange of commodities between the producers and consumers of the world, and will soon be a boon to humanity.

The Character and Future of the Union Pacific Railroad

ITS OPERATION A PUBLIC ECONOMY.

[From the New York Tribune.]

Omaha, Neb., Aug., 1868.—I have written of the agricultural capacity of the regions traversed by the Union Pacific Railroad. Its mineral wealth can not be easily estimated, simply because new deposits of gold, silver, iron, and coal are being so frequently discovered that the calculations of to-day will not apply to the new facts of to-morrow. It is manifestly certain that the \$75,000,000 now annually produced of gold and silver will be greatly augmented by the improved facilities of transporting labor, machinery, and ores which the Pacific Railroad will afford. It is equally unquestionable that the coal veins which have been discovered in the Black Hills and the Rocky Mountains, will solve a problem which threatened to be the most obstinate of all the practical questions concerning both the operations of the railroad and the establishment of manufactures, viz.: where shall fuel be obtained? At Carbon station, about 650 miles west from Omaha, and between Laramie and Benton, about 100 tons per day are now being mined of superior semi-bituminous coal, which the engineers of the Railroad Company's locomotives prefer to that hitherto obtained at Boone, Iowa, and thence transferred to Omaha for railroad consumption. The mouth of the Carbon mine is close to the railroad track, so that fuel is cheap as well as good, a fact which affects all settlers throughout that region, no less than the Railroad Company, for timber must be cut in the mountains and floated from 10 to 30 miles down the streams to the line of road.

The astonishing rapidity with which this railroad has been built has become the subject of general wonder throughout the country. Nothing like it has ever been seen before. Two hundred and thirty-five miles

were built in 1867, and the track-layers are to-day more than 200 miles in advance of their starting point in April last. Can a road built with such tremendous speed, and that, too, in a district where every tool, every laborer, every appliance to aid in the work, has to be brought hundreds of miles from the Eastern manufactory, be well built? This is a vital question, and one upon which the people want the most unequivocal information. I have seen and examined more than 700 miles of this road, and I believe it thoroughly built and fully equipped. For 500 miles the grades are exceedingly light, and the direction an air line. There the road was easily built, but nowhere indifferently or slovenly. The embankments are high enough to secure good drainage, and wide enough to make a solid foundation; 2,650 ties are laid to the mile (the average upon Eastern roads is 1,700); the rails are joined by fish-plates, making a "continuous rail;" the water courses are spanned by substantial Howe truss bridges, or by culverts of timber, which is to be at once replaced by solid masonry, although the timber is good for at least ten years wear. The road bed is being ballasted with broken stone and disintegrated granite, which is excavated in the passage of the Black Hills, and which makes as fine ballasting material as there is in the world. The road is remarkably smooth. On the return trip, the run from Cheyenne to Omaha was at an average rate of 34 miles and a fraction per hour, and we run 55 miles in one hour. In short, the road shows less signs of newness than nine out of ten new roads at the East, and is, so far as an intelligent observer can judge, a well-built, well-equipped, and well-managed railroad. The passage over the Rocky Mountains requires no grade exceeding 90 feet to the mile, and the ascent to the summit, 8,262 feet above the sea level, is accomplished with so little of the ordinary sensation of mountain railroading that the elevation attained seems incredible to the passenger, until standing there, he looks down vast valleys to where the Snowy Range rear their snow-capped heads, 80 miles to the southward, with Long's Peak towering grandly 30 miles beyond.

To write of this far Western country and not of the Union Pacific Railroad would be as absurd as to describe Washington without a word of Congress or the capitol. To-day, and for years to come, the Pacific Railroad is and will be the great absorbing fact of the West. The railroad has opened the Platte Valley and brought its settlers; it has built its towns and cities; it has developed its coal and iron mines; it has furnished four-fifths of the population along its line west of the Missouri, and, to a great extent, it has the future of all this region in its hands. The old-time rule has been reversed; the locomotive is now the pioneer of the emigrant, and in 1869, when the through line is complete, there will be no Western "frontier" between the Atlantic and the Pacific. The corporation which accomplishes this will be a power in the land, and, to a great extent, the mold of the public opinion along its track. It will doubtless receive the usual denunciations of "monopolies," for it will undoubtedly have a monopoly of traffic and of influence. Already, its earnings for the last year were more than \$4,000,000 upon its way business alone, a fact very indicative of future prosperity.

Meantime, what is the road doing, if anything, for the benefit of the Government which has endowed it with liberal aid? The books of the Superintendent of the road and

of Gen. Myer, U. S. Quartermaster at this post, will show. What did wagon transportation cost before the building of the road? In 1866 and '67 the contract price for wagon transportation of army freight ranged from \$1.42 per 100 pounds per 100 miles to \$2.50, which latter price was paid during the Winter of 1867-8, the average rate for 1867 being \$1.97 per 100 pounds per 100 miles. How does the railroad service show in comparison? There was paid to the railroad last year for army transportation about \$700,000, at an average cost of but *fifty-two and a half cents* per 100 pounds per 100 miles, or a trifle over one-fourth the wagon rate for the same year. Here was a saving to the Government of nearly \$2,000,000 in one year's freighting, saying nothing of the saving in time of transit.

Will the road be troubled by Indians? I think not to any great extent. A general Indian war, such as is now feared, would necessitate doubling the guards on certain portions of the line, but even then the main fighting would be done south of this line in Kansas and Eastern Colorado, or north of it in the Powder River country. In this connection it is interesting to know how many troops are now employed along the line of the road. The number has been largely overstated in some published letters which I have seen. Up to June of this year there had at no time been more than 2,657 troops at the various military posts of Forts Kearny, McPherson, Sedgwick, D. A. Russell, Sanders, Morgan, and Fred. Steele, the latter post being located at the second crossing of the North Platte, 695 miles west of Omaha, and within two miles of the new and already famous town of Benton. Fort Russell, three miles from Cheyenne, has the largest garrison, having had in November, December, and January last, more than 1,000 men. The transportation, and especially the subsistence of these troops, costs now but a small proportion of what was paid in the old wagoning times.

I have hinted at an Indian war. What to do with the Indian is a question which you have freely discussed in your columns. The Western men have but one answer—kill him. I have found only one man in all the Western country—I speak of the country west of the Missouri—who holds a contrary opinion. That one man advocates kindness and conciliation; everybody else argues nothing but extermination by the quickest method. They see in the redskin only a false, treacherous, fiendish animal, and denounce the author of "Lo, the poor Indian," as a malignant enemy of every settler upon the Plains. They listen to your theory of kindness and admit that it would be more humane, more Christian, and perhaps more potent than the system they advocate, if you had now to begin dealing with the Indian people; but to take the facts of to-day, and deal with a race which now sees in every unprotected pale face a victim to be tortured and murdered, they declare that nothing but vigorous war will do. Perhaps the events of the present year may help us to decide this question intelligently.

S. D. P.

Proposals are invited for grading, masonry and bridge work on the Eastern, Western and Middle divisions of the Union Central Railroad of Pennsylvania, which is to extend from the Lehigh river through the Mahoning valley westward of Tamaqua.—*Mining Register*.

The Gold Fields of the United States.

The gold fields of the United States are divided into those of the Atlantic and of the Pacific slopes, sometimes designated respectively as the Appalachian and Sierra Nevada gold regions.

The Appalachian mountains rise in Lower Canada, south of the St. Lawrence, extending in a system of parallel ridges, in a southerly direction, about 1,300 miles, passing through the States of Vermont, New York, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia and Tennessee, into Alabama.

Skirting the eastern margin of this chain is a narrow belt of metamorphosed rocks of the lower paleozoic age in an undulating range of elevations, known in Vermont as the Green Mountains, in New York as the Highlands, in Pennsylvania as the South Mountains, and in Maryland, Virginia, North Carolina, South Carolina, Georgia and Alabama, generally as the Blue Ridge.

Apparently of the same geological age, and running nearly parallel with this ridge, immediately to the southeast of it, lies the great auriferous belt of the Atlantic, varying in width from fifteen to seventy miles, containing gold in workable deposits in Lower Canada, in Virginia, the Carolinas, Georgia, Tennessee, Alabama, and in a few isolated lumps and scales throughout the whole length of this mountain system. The predominating rock of this belt is talcose slate, passing into other varieties and alternating with formations of granite and syenite.

From 1830 until 1861 mining was regularly carried on in Virginia and from \$50,000 to \$100,000 annually received at the mint from that State, the whole amount deposited up to the year 1866 being \$1,570,182.82, the first deposit of \$2,500 having been made in 1829. The gold belt in Virginia is from fifteen to twenty miles in width, and thus far developed chiefly in the counties of Fauquier, Culpepper, Orange, Spotsylvania, Louisa, Fluvanna, Goochland, Buckingham, Campbell and Pittsylvania.

Gold was known to exist in North Carolina before the commencement of the present century, a good sized nugget having been found in Cabarrus county in 1799, and another afterward, weighing twenty-eight pounds avoirdupois. In the same locality it is estimated that over a hundred pounds were collected prior to 1830, in pieces each over one pound in weight. In the adjoining counties lumps were found weighing from one to sixteen pounds. From 1804 to 1827 North Carolina furnished all the gold of the United States, amounting according to the mint returns, to \$110,000. Up to the year 1866 the State deposited at the mint \$9,278,627.07. The counties in which mining has been conducted are Rockingham, Guilford, Davidson, Rowan, Cabarrus, Rutherford and Mecklenburg. Previous to 1825 the metal had been obtained from washings, but in that year auriferous vein stones were discovered, and 625 ounces of gold obtained by rock mining, after which other lodes were found in most of the counties above named.

In 1826 \$3,500 were deposited at the mint from South Carolina, and from 1830 to 1861 mining was prosecuted in that State with varying success. In 1852 the Dorn mine was opened in the Abbeville district, and in a little more than a year produced \$300,000 worth of gold by the aid of a single Chilian mill worked by two mules. The total deposits from this State amount to \$1,353,663.98. The

whole northwestern part of South Carolina contains gold, but the districts in which it has been mainly developed are Abbeville, Pickens, Spartanburg, Union, York and Lancaster.

In 1830 \$212,000 were received from Georgia as the first contribution of its mines, which from that date to 1861 yielded a product of \$6,971,681.50. The whole of the State lying along the base of the Blue Ridge has been found more or less auriferous, but the counties in which mining has been principally conducted are Carroll, Cobb, Cherokee, Lumpkin and Habersham.

Gold has been found in Tennessee and Alabama, but the quantity has been small, the whole amount deposited from the former State since 1828 being only \$81,406.75, and from the latter since 1838, \$201,734.83.

Specimens of silver ore have been discovered in several of the States aforesaid, but, so far, in paying quantities only at the Washington mine in Davidson county, North Carolina, where ores of great richness exist. The gold obtained by washing in the Southern States was eagerly purchased by jewelers, anxious to secure the same on account of its great purity; and one-half of the product, it is supposed, was thus consumed.

The whole amount deposited at the mint from the six States between 1804 and 1866 is \$19,457,297.55; and if an equal quantity passed into manufactures and foreign commerce without reaching the mint, the total gold product of the Atlantic slope up to 1868 may be set down at \$40,000,000. Efforts are now being made to develop the quartz veins of the Southern States with the aid of the improvements in mining, found to be effective in California and elsewhere.

PACIFIC STATES.

But the most important gold fields of the United States and of the world are found in the States and Territories extending from the northern to the southern boundaries of the republic, and from the Pacific Ocean to the eastern spurs and outliers of the Rocky Mountains, embracing an area of more than a million of square miles. This extensive region is included within California, Oregon, Nevada, Arizona, New Mexico, Colorado, Utah, Dakota, Montana, Idaho and Washington. Everywhere throughout this vast extent are found districts rich in the precious metals, including mines surpassing, in the quantities of treasure yielded, the most celebrated of other countries.

The existence of gold on the Pacific, within the limits of the present State of California, was well known to the Jesuit Fathers long before the territory became a part of the United States; but the first discovery which became practical in the development of an extensive mining interest was made in the spring of 1848. A contractor having engaged to furnish lumber to a retired Swiss officer of the Guard of Charles X., erected a saw mill on the south fork of the American River, at a place now called Colomo, in California, on the western declivity of the Sierra Nevada. The mill was completed in March, 1848, and on setting it in operation, the water, rushing through the new tail-race, exposed numerous small particles of a light metallic lustre, recognized as gold. The news of the discovery soon spread far and wide, and as early as July of that year four thousand persons were engaged in washing on the American River and its tributaries; obtaining from thirty to forty thousand dollars' worth of gold every day, and by the month of November they had extracted from four to five millions.

In July, 1849, fifteen thousand persons had reached the new El Dorado, including miners from Mexico, Peru, Chili and elsewhere. These were soon after joined by immense immigrations from the United States and Europe, making an aggregate number before the close of 1849 of fifty or fifty-five thousand persons, who had washed from the river beds of California, before the commencement of the year 1850, gold equal to forty millions of dollars, increased during the following year to ninety millions.

The gold bearing rocks of California are a belt of talcose and other varieties of slate, varying in width from forty to fifty-five miles, alternating with masses of trap and serpentine, flanking the Sierra Nevada on the west, extending into the valley of the Sacramento and San Joaquin, where these rocks are overlaid by recent deposits of a sedimentary nature. Within the slate in metamorphic rocks are enclosed veins of auriferous quartz, believed to be the most prolific source from which is taken the gold of California, and to the detritus of which, separated from the original matrix by disintegration, abrasion and distribution by aqueous and other agencies, the shallow placers owe their origin.

The gold bearing rocks of the Ural mountains, of Australia, and of the Andes, belong to the paleozoic or silurian age; Sir Roderick Murchison claiming to have established the fact that all the more productive auriferous rocks belong to that geological period. The gold-producing States of California and Nevada appear, however, to form a remarkable exception to this general rule, as numerous fossils of undoubted jurassic origin have been found *in situ* in several different localities upon the most auriferous rocks in these States.

West of the Sierra Nevada silver ores first appear, and at the Comstock lode, in Nevada, an annual yield has been obtained nearly twice as great as that of the celebrated Potosi mines during the most prosperous periods of their history. The product of California is almost entirely gold, yet some silver is obtained by separation, while the product of Nevada is principally silver, the deposits of gold being less numerous and less extensive. In the Territories of Arizona, New Mexico, Colorado, Utah, Idaho and Montana, both the precious metals abound. Silver mining began in 1860 in Nevada, and it is estimated that up to the present time the quantity extracted is equal to one hundred millions of dollars.

The first gold-mining operations were confined to shallow washings, where the metallurgy near the surface, and was obtained without expensive machinery. As these deposits became exhausted, methods were resorted to for the purpose of carrying water to levels above the course of the present streams, to wash the auriferous gravel found at such elevations. The method is known as the hydraulic process. At a still later period the system of mining in quartz rock was commenced, which appears at the present time to be well established in California, and is annually producing increased quantities. To render this branch of mining successful, an established and permanent population, with due proportion of skilled mechanics and establishments for the manufacture of machinery, appears to be necessary.

Of the quantities of the precious metals already taken from the mines of the United States different estimates have been formed, some placing the product of California alone, since the commencement of 1848, at over

one thousand millions of dollars. The special commissioner for the collection of statistics of gold and silver west of the Rocky Mountains estimates the product of California, from 1848 to the end of 1865, at nine hundred millions, and that of the neighboring States and Territories, including the province of British Columbia, at \$100,000,000, making an aggregate of \$1,000,000,000. To reach this result the manifests at the custom house at San Francisco have been taken, amounting to \$740,832,623, to which was added the sum of \$45,000,000 for gold and silver in use as currency on the Pacific, with an estimate of \$115,000,000 for jewelry and plate manufactured in California, gold dust carried to the Atlantic States and foreign countries by miners returning home, without passing through the custom house, and for dust buried or concealed by miners at remote points. It is safe to assume the total yield of Nevada, up to the end of 1866, at \$100,000,000; that of Colorado at \$30,000,000; Oregon and Washington Territories, \$25,000,000; Idaho and Montana, each, \$25,000,000, and Arizona, New Mexico and Utah, \$5,000,000. If the product of California, up to the end of the same period, be assumed as equal to \$900,000,000, the total product of the western mines up to the 1st of January, 1868, will amount to \$1,110,000,000, or, in round numbers, \$1,100,000,000, of which \$1,000,000,000 may be set down for gold, and \$100,000,000 for silver.

As to the annual product of the mines, opinions are likewise divided, some claiming eighty and others a hundred millions.

In 1865 and 1866 a revenue tax of six-tenths of one per cent was collected on all the gold and silver bullion in lumps, ingots, bars, or otherwise as assayed, which in 1866 amounted to \$499,455, indicating a total value of bullion assayed, upon which a tax was paid, of \$83,242,551 in paper currency value, equal in gold value to \$56,000,000. A considerable quantity of bullion doubtless escaped taxation, but it is not probable the amount was greater than a fifth of the whole quantity subject to a revenue duty.

In the remote and unsettled regions mining is generally conducted by large parties operating in such a manner as to afford mutual protection against hostile Indians, and the localities become well known and are not likely to be passed over by the internal revenue collector. The chances for evasion are greater in the more settled districts, where the mines are more scattered. But these are not so numerous as to render it probable that an amount greater than we have assumed could escape the excise duty. Arizona, New Mexico and Utah produced a certain quantity, which, but for the Apaches, would have amounted to many millions; considerable quantities passed into manufactures without being previously assayed, and left the country in the form of dust by miners returning to foreign parts, or was shipped in the form of ore; and \$5,000,000 may be set down as a contingent under these heads, making a total of \$75,000,000, gold value, for the year 1866, of which \$18,000,000 represent the silver product.

The amount deposited at the mints for the year 1866 was less than \$32,000,000, gold value, the mint returns exhibiting about four-sevenths of the amount of assayed bullion produced during that year upon which a revenue tax was assessed and paid. A license tax was paid by sixty-eight private assayers, nearly all of whom were located in the mining territory, and it may be safely affirmed that

for some years past the larger portion of the gold and silver product of the United States has been cast into bars or ingots by these licensed assayers, and thus passed into the market without being returned to the mint.

The tax on bullion for the fiscal year ending June 30, 1867, was five-tenths of one per cent, amounting to \$41,339, indicating a currency value of bullion on which tax was paid of \$88,267,900, equal in gold value to about \$60,000,000; gold in the Pacific States being at a premium on paper of about 50 per cent.

It is not probable that the product of the last fiscal year differs materially from that of the preceding, the increased amount of taxes collected being due rather to greater efficiency in the execution of the revenue laws. The yield for the calendar year of 1867 can hardly fail to be less than that of 1866, on account of the Indian troubles in Montana, Idaho and Arizona, and also because many mining companies wishing to import mills and other machinery are awaiting the completion of the railroads across the mountains, as offering greater facilities for transportation, hence mining in many localities is, for the present, in a measure suspended. Under these circumstances it is not likely the product for the year ending December 31, 1867 will exceed \$70,000,000, gold value.

Placer mining, from the exhaustion of deposits, must necessarily decline on the Pacific slope, as it has in all other countries, but rock and hydraulic mining are destined to increase largely when our western regions become occupied by a settled population.

The field for enterprise in these branches is almost unlimited, and with the completion of proper railroad facilities, and the termination of Indian difficulties, the gold-bearing rocks of the Western States and Territories will furnish profitable employment for millions of men and hundreds of millions of capital; and with the aid of suitable machinery and accomplished metallurgists, our annual supply of the precious metals may easily be increased to several hundred millions.—*Am. Rep. Com. Gen. Land Office. 1868.*

Letter from Mr. Latrobe.

PROFESSOR HENRY MORTON, Editor of the Journal of the Franklin Institute: Dear Sir:—I notice in the July number of the *Journal* just issued, some editorial references to the "Hoosac Tunnel," to which I must ask your attention, as they (no doubt undesignedly on your part), place me in a position not altogether agreeable, the spirit of the remarks being likely to be misconstrued by your readers. Thus you speak of the success of the drilling machine, which soon followed the recommendation in my report of December, 1866, that its further improvement should be prosecuted *outside* of the tunnel, which should meanwhile be driven by hand labor, as a "good joke" doubtless relished by my friends, &c. The meaning of this may seem to be, that while a young engineer might be excused for a want of foresight, such as was displayed by the failure in this case to see that success was so close at hand, in an old member of the profession it was scarcely pardonable. Now, if my report be referred to, it will be seen that, while giving the history of the drill at the Hoosac Tunnel up to that time, and the reasons for and against it as a labor-saving machine derived therefrom, I do not cast any doubt upon its ultimate success, nor even predict a lengthened period of trial before an effective machine would be secured.

Previous experience in the history of the power drill, now going back twenty years or more, had shown but a succession of abortive efforts to make it a really useful and economical piece of mechanism, and I was not unwarranted in fearing that its past history might, to some extent at least, be repeated. I can scarcely then be found fault with, because success was so much sooner realized than there was reason to hope? It may be said that the Mont Cenis drill had already demonstrated a performance in Europe, which I should have known could as well be accomplished in America; but we had no right nor indeed the ability to use that machine here, for want of acquaintance with the minutiae of its mechanism; and even in the absence of these difficulties, a feeling of national pride, and an ambition to devise something better, would have stood in the way of a servile copy of a foreign invention. I think, in short, that no one can read the remarks of my report of 1866, on this subject, without agreeing that the "joke" indulged in at my expense, is hardly legitimate, however innocently meant.

Again, it is inferred, that I am not a reader of the *Journal of the Franklin Institute*, because I was not aware at the time of my notice of the Michigan drill, in my recent report of 1867, that this drill was invented by Professor De Volson Wood, a conclusion drawn from very slight premises, as I think you will yourself admit. The fact is, that when I wrote this report, I had just returned from Europe, had been but once at the Tunnel, and the mechanic who showed me the drill only knew that it came from Michigan, without knowing the name of the inventor. Hence, I spoke of it as I did, and I may add that my mention of it was sufficiently favorable to draw a letter from Messrs. Robinson & Wood, thanking me for the terms in which I had referred to it, and this led to some further correspondence, in which the causes (for none of which I could be held accountable), why the drill had not been allowed a fuller and fairer trial, were adverted to. As to my reading of the *Journal*, to which I have been a subscriber for very many years, and of which I have a complete set back to its first number, I must admit that occasionally, during long absences, certain articles do escape my attention, and among them, it so happened, was Professor Wood's upon the Hoosac drills, which appeared while I was abroad last year, and to which pressure of business on my return prevented me from going back. I presume that I am, on the whole, as regular a reader of the *Journal* as most of its subscribers, if I am to judge from what I hear from others in my profession; but I must allow as will every fully occupied engineer, that to accomplish the perusal of even half the scientific periodicals of the day is no easy task, and therefore, often imperfectly performed.

The differences of opinion between myself and one of the tunnel commissioners are spoken of in the editorial referred to, without any decided intimation as to who is right and who is wrong, but it is admitted that I have shown that the contract system recommended by myself has proved the most economical, and that the Legislature of Massachusetts has fully adopted my views on that point, is manifested by their recent abolition of the "commission," and by the requirement that no work after the 1st of October next shall be done upon the tunnel, except under contracts, proposals of which are now being received. In respect to the *pump* question, I have simply to say that I adhere to my opinion of the

superior safety and economy of the Cornish engine, at the top of the shaft. The donkey pumps (as they are familiarly called), advocated and used at the bottom have indeed *luckily* kept the water from causing an absolute suspension of the work, because it has, thus far (contrary to every reasonable expectation), rather diminished than increased in its flow; but it has been more than once on the very verge of drowning the donkeys, to say nothing of the enormously increased consumption of coal, costing \$7 per ton, which they have required. It might not be difficult to show that, owing to the difference in this item, and in the repairs of the machines, the Cornish engines would have proved in less time than their services would have been required, *had they been applied at the proper time*, that notwithstanding their greater first cost, they would have been the *cheaper* as well as the safer and more certain means of draining the tunnel.

I must ask, my dear sir, that you will let these remarks appear in the *Journal*, as much for the purpose of giving a correct account of the present state of affairs at the Hoosac Tunnel, as in explanation of what may seem to require it in my reports as its consulting engineer. I am, very respectfully yours,

BENJ. H. LATROBE.

North Adams, Mass., August 12, 1868.

The Business Depression in Europe.

The condition of business in Europe still continues depressed, the hopes of amendment during the fall have not been realized. In the United States, trade has decidedly improved during the last few weeks, but in England and on the continent of Europe there is still an entire absence of animation. There can be little doubt that this depression may be entirely attributed to the apprehensions of war, which check confidence and limit industry to the supply of the more pressing demands for commodities for immediate consumption. All over Europe there is the same dearth of employment, the same accumulation of capital, which is locked up unproductively, and an uneasy looking forward towards the future, accompanied by a general desire of all classes to prepare for the worst.

That the military burdens and apprehensions of war should paralyze industry is not to be wondered at. Taxation presses so heavily on production that the prospects of labor are absorbed by the governments. But this is not the only evil. The withdrawal of the immense number of able-bodied men to the armies from active industry, and their conversion from the condition of producers to that of consumers, entails direct and positive losses that tend still further to the prostration of business. The immense standing armies in Europe are sufficient evidence to prove the false condition of society and government in the old world, and demonstrate the necessity for a change. It is scarcely possible that the existing condition of affairs can long be preserved, and the probability is that Europe is not merely on the eve of great wars, but of a far greater social and political revolution.

It is the great misfortune of the existing condition of affairs in Europe that the people have no interest whatever in the impending wars. They are opposed to the conscription and taxation that exhaust their energies, and desire nothing better than to be permitted to live in peace with each other. If war comes, it will be waged in the interests of dynasties and not of nations. All the uneasiness and

misery resulting from the continual apprehensions of a general conflict are caused by the selfishness and personal ambition of rulers. In the impending war between France and Prussia the leading object of the French Emperor is to establish his family more firmly on the throne. The watchword of the "Rhine frontier" is only a means to this end.

There never was so much idle capital locked up in Europe as at the present time, and there never was so much distress among the masses. It is the great object of every person to hoard some money as a safe-guard against sudden vicissitudes. Thus the springs of industry are dried up at their source. No person can tell the changes that an hour may bring forth, and every one tries to be prepared for the catastrophe when it comes. The vast sums of money accumulating in the banks of England and France are simply the evidence of the destitution that generally prevails. How long this condition of affairs is likely to continue it is impossible to predicate. It is to be hoped, however, for the sake of a common humanity, that the present depression shall not long continue, and that wiser counsels may prevail so as to avert the horrors of a war, and put an end to this armed peace that is only less costly and disastrous than the miseries of actual hostilities.—*Economist*.

The Mechanics of Spiritualism.

Dr. Peper, of the Polytechnic Institution in London, so well known for his ingenious invention of the ghost, the floating head, &c., has for some time past employed himself in the development and exhibition at the above named institute of sundry contrivances, by which all the wonders of spiritual manifestations have been not only paralleled but exceeded. One of the most remarkable of these consisted of an arrangement by which various objects and persons were caused to rise in the air and remain there suspended under conditions which implied the impossibility of any supporting wire or thread however fine and invisible.

When, however, we mention that in the patent by which these contrivances are secured to their inventors' use a large plate of glass figures as the "invisible means of support" of these light characters, the wonder of the thing will be somewhat diminished, while the simplicity and ingenuity of the idea may well claim praise. In a foreign scientific journal we see some tricks of the Davenport Brothers are described and are declared inexplicable, and yet we have repeatedly seen performances, involving every important feature of these *super-human* developments, made by an amateur in the arts of legerdemain in the presence of many spectators, and defying all their ingenuity of detection. Yet to those initiated, these feats are as easily reduced to the domain of nature and mechanics as Dr. Peper's wonders when the glass is recognized.

Receipts of the Western Union Railroad Company for the week ending October 7:

	1868.	1867.	Inc.	Dec.
Freight.....	\$15,391.46	\$19,922.55	.....	\$4,531.09
Passengers.....	5,886.75	6,425.40	.....	\$538.65
Express and Tel.	350.00	570.00	.....	220.00
Mail.....	375.00	375.00	.....	.....
Totals.....	\$22,003.21	\$27,322.95	.....	\$5,319.74

Receipts from January 1, to October 7:

1868.....	\$586,759.26
1867.....	547,862.10
Increase.....	\$38,897.16

The Ontario and Huron ship canal was the subject of a report at a public meeting in Toronto, on Sept. 19th, by F. C. Caperoles, who has just returned from a visit to England. Mr. Caperoles said his mission to England was a great success, and that prominent engineers indorsed the same. Mr. Wythe, the eminent contractor, has already undertaken the work in conjunction with, and on the same basis as the United States contractors. All that is now necessary to secure the support of English capitalists is a grant of 10,000,000 acres of land by the Canadian government. A Monday's despatch states that a memorial to the Dominion Government to grant ten million acres of land is being largely and influentially signed.—*Chicago Review.*

The Erie Company, during the past few months, have laid down on their line over 9,000 tons of the best quality and most approved pattern of steel rails of European manufacture, at such points as are subjected to the most service and where the greatest speed is required. This great thoroughfare is now in the most splendid condition for the transaction of fall and winter business. The road bed, track, equipment (including spacious cars and admirably appointed sleeping coaches) and the adjustment of time schedules to the convenience of Western transportation, are all that could be desired.

THE AIR LINE RAILROAD.—In the House, on Wednesday last, the bill to amend the charter of the Air Line Railroad, from Atlanta, Ga., to Charlotte, N. C., was under discussion. The amendments allow the Road to receive subscriptions of land or labor, and issue preferred stock to the amount of \$1,000,000. The bill finally passed, having previously received its third reading in the Senate. In a conversation with the President of the Road, Col. Buford, we were lead to believe that this important enterprise will be pressed forward without delay.—

The Legislature of South Carolina, at its recent session, passed the following acts relative to railroads:

"Act to authorize additional aid to the Blue Ridge Railroad in South Carolina.

"Act to enable the Chatham Railroad Company to extend their road to Columbia.

"Act to amend an act entitled 'an act to incorporate the Air Line Railroad Company in South Carolina.'"

The St. Joseph *Herald* states that the St. Joseph & Council Bluffs road has now been open about four weeks, and is already doing a fair business. Its location upon the bottom lands of the Missouri, the whole distance gives it a level grade—a straight line mainly—and will enable it to run passenger trains with great speed, and do a large freight business, with great economy.

On a common road wheat would consume its own value if carried 350 miles. In other words, it would be worthless at that distance from market, while by rail it can be carried 3,000 miles at a profit.

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

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Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

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THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE
CHECKS,

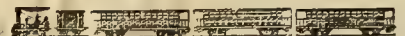
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at the north-east corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a. m. and 8:00 p. m. On Sundays, one Express Train
at 7:00 p. m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p. m.; Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville. arrives at
Harrisburg at 2:30 p. m. Without change of cars from
New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
ing at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at
1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:49 a. m.; Allentown 12:20 p. m.; Easton at
1:35 p. m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
7:20 p. m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

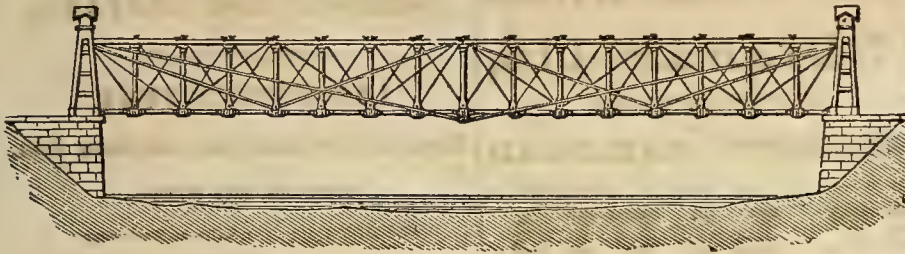
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House-
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength superstructure, and railroad work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and construction of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,

No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

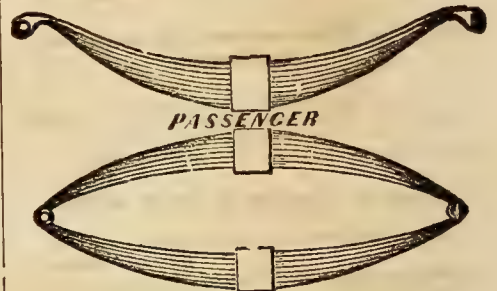
68 Broadway, New York,

121 West Front Street, Cincinnati.

350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER

LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	6 45 A. M.	
Richmond & Chicago.....	7 00 P. M.	9 20 P. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	8 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET, Gen. Passenger Agent.

J. W. CONLOGUE,
General Superintendent.**Best Route to St. Louis and Chicago****INDIANAPOLIS,**
CINCINNATI—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North west and South-west.**5 THROUGH TRAINS DAILY,**
(Sundays excepted) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08, m
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.**MOSELEY'S WROUGHT IRON ARCH****BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

Successor to

J. McDANIEL & HORNER,

**Locomotive and Railroad****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**This Iron is all made from best Juniata cold-blast charcoal Pig Iron, re-fined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works
June 9**THE SCHENECTADY
LOCOMOTIVE WORKS,**

SCHENECTADY, N. Y.,

Continues to receive orders and to furnish with promptly the best and latest improved

**COAL OR WOOD BURNING
LOCOMOTIVE ENGINES**

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.**PASCAL IRON WORKS.**

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler or Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.**Wrought Iron Welded Tubes**—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.**Wrought Iron Galvanized Tubes**—strong and durable, designed especially for Water purposes.**Cast Iron Gas or Water Pipe**—1½ to 24 inches in diameter, and branches, for same, &c.,
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.**Philadelphia, Wilmington & Baltimore****RAILROAD!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

1.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, OCTOBER 22, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING.
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " " per month.....	3 00
" " " six months.....	12 00
" " " per annum.....	20 00
" column, single insertion.....	5 00
" " " per month.....	10 00
" " " six months.....	40 00
" " " per annum.....	80 00
" page, single insertion.....	75 00
" " " per month.....	25 00
" " " six months.....	110 00
" " " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:25 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo. Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo. Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton. Lima and Chicago.....	3:00 P. M.	5:30 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:20 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express.....	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION.			
Connersville. Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.	
Connersville. Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	6:30 A. M.	
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis. Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville. St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:40 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

Shall or shall not Cincinnati be on the Grand Avenue of America?

In several articles of the Record we have shown the necessity, or at least, the immense advantage to Cincinnati of completing the Mackinaw Road, in a direct line (as it will be), from the great central point of the Lakes (Mackinaw) to the great center of the Ohio Valley (Cincinnati); and of completing the direct Southern line from Cincinnati to all the cities of the South; and that Cincinnati, instead of advancing with its former rapidity, was really sluggish, and fell far short of what it should be in wealth and population. The total vote of Hamilton County was 44,000, which was a considerable increase on former votes; but what did it show for population? Taking the highest ratio we can give—7, and the population of the whole County is but 308,000; while the vote of the city being only 32,000, shows that the city has only 224,000. In 1850, it had 116,000; so that eighteen years of growth, in the greatest and most prosperous city of the West gave about 95 per cent. of increase. Doubtless, this is a healthy growth, and in Europe would be remarkable; but, not so in this country. This is a new country and Cincinnati one of the most flourishing of its new cities. In this eighteen years, Chicago has increased 500 per cent.; St. Louis, 150 per cent.; Louisville, 120 per cent.; Cleveland, 300 per cent.; Toledo, 400 per cent.; and from these ratios, it is plain enough, that even Cleveland will outrun Cincinnati, unless Cincinnati puts forth more energy. And yet with all this, Cincinnati has unquestionably far the most resources, on which to build up a great city. What is the matter is simply this, that for these eighteen years Cincinnati has encouraged Public Works, or to extend its arms in new directions. This is the whole of it, and unless its policy is changed, it will be like Berlin and Vienna, a good enough city, and pleasant enough; but no place for young and enterprising men to come to, and no place to invite capital and talent, by the promise of great rewards.

After this had passed through our minds, we took a speech made by Mr. John Quincy Adams, Jr., at Columbia, (S. C.) It was a political speech, but it had in it one very suggestive paragraph on the future of this country. One which should be read and thought upon by all who expect to take part in the politics and commerce of the nation.

After discussing the political topics and assuming the settlement of the negro question, Mr. Adams turns to the mutuality of interests between New England and the South. This mutuality he said was evident; the South furnishing its cotton, lumber, turpentine, etc., to the ship-building and commercial interests of the East. He assumed in this, however, that New England would continue

to be almost the sole manufacturer; and the South to supply the raw material. In this, he is mistaken. Georgia has many manufacturing establishments, and beyond doubt, manufacturers of cotton, iron, and copper will, in the future, grow up in the regions where the raw material is produced. It is easier to carry capital to the raw material, than to carry the raw material to the Eastern States. It is nevertheless true that the Negro question being settled, the interests of the whole Atlantic seaboard will be identical. Hence, Mr. Adams says, that in the future, the commercial, financial and political controversies will turn more on water sheds, than on any past political ideas; and hence, argues, that what the Atlantic States have chiefly to do is to guard their own interests. This we have long foreseen; but Mr. Adams is the first public man who, to our knowledge, has announced it. This idea is very suggestive, and it is specially suggestive of what is the interest of Cincinnati in the future, and what course she ought to pursue. If there be a mutuality of commercial interest between the Eastern and Atlantic States of the seaboard, there is just as much and more between the Central States of the West and the South. In the nature of the country, the Northern States of the Great Valley, which includes Kentucky, Tennessee and Missouri, must ever be the great producers of grain and provisions. The planters and manufacturers (for such there will be,) of the South can no more do without them, than can New England and New York. Yet, heretofore, our great railroad lines have without exception, been East and West. They have all been made, as if the only outlets for grain and provisions were New York and Boston. This is unnatural. The great outlook of the Mississippi Valley is to the South; and in regard to the Southern Atlantic, it is no more difficult to cross the Cumberland mountains than to cross the Alleghenies. It is evident, then, that however long we may persist in looking to New York as the great artery point of Western commerce, the spell must at last be broken. There must and will be a great North and South Axial Line, through the heart of the country. It must also cross the Ohio river, and the only real questions are *where* it will cross the Ohio, and *when*? By all the laws of nature and by all the reasons of commerce, it ought to cross at Cincinnati. Cincinnati is nearly the center of the Ohio Valley. It is the commercial center of the whole region, from the Alleghenies to the Mississippi. It has a great population and capital. In fine, nothing can prevent its being the grand center of the grand axial line, except its own want of will and energy. But, so great is its inertness, that Louisville is now driving a line just where Cincinnati ought to be going; and even the little city of Evansville is striving for the same by aiding a road South. The supremacy of Cincinnati

in the Southern trade is in danger, not from any one point, but because the people on all sides of it, tired of waiting, are finding new avenues for themselves to the South. Cincinnati can settle this question, by assuming the *initial* at once, and advancing capital enough to make the roads both North and South safe. Nothing short of this will do; but, the amount required will be comparatively small. Great interests on both sides are waiting only to be *encouraged*, to know that if they begin, they can succeed. As to the *when*—the time is *now*. In three weeks the Presidential election will be over, and the political affairs of the country be placed on a stable foundation. In our opinion, the business of the country will spring into activity, and a large amount of capital set free, which has been held up to wait events. It is certain, that if Cincinnati don't attend to her own interests, other cities will attend to their's. What does Cincinnati want? And what are her peculiar interests? She wants to *increase her manufactures and become the center of internal trade*. For these she is naturally fitted, and if she seizes her opportunities, she can command them beyond any city in the West. She must put herself on the grand AXIAL LINE, NORTH AND SOUTH, or ten years will find her secondary to Chicago and St. Louis, with Louisville and Cleveland close at her heels.

Railroad Discriminations Against Cincinnati.

Our attention has been arrested by complaints that freights from Indianapolis, passing through this way to Baltimore, are carried at a less rate than shipments from this city. For instance, that flour is shipped from Indianapolis, by the Indianapolis and Cincinnati and the Marietta line, to Baltimore, at one dollar, whilst from this city over the Marietta line, it is taxed one dollar and ten cents per barrel. Flour is brought hither from Chicago, at a very much less rate, relatively, than the wheat from which the flour can be made. Shipments have been made from here to Dayton, and thence to New York, at a cheaper aggregate rate than they could be made from here. The roads that are parties to such a condition of things claim to be doing business in the interest of Cincinnati. If this is the way they manifest interest in our trade, it is not apparent that they have a less regard for the commercial prosperity of other places. The fact is that this discrimination results from that competition for business which bids for traffic out of its strictly legitimate or proper channels, and places our merchants at a disadvantage. It is a just provocation for no small amount of condemnation and anathematizing, but unless, in some way, counter influences can be brought to bear, establishing from here more lucrative traffic for the roads than this promises to be, it is not probable that they will experience the force or the requisite moral influences. We can conceive it to be possible that the managers of roads centering here would justify themselves in trying to forage in other fields for business, on the plea that, having constructed roads with a view to great profits in the traffic controlled at this point, they had been disa-

pointed in the extent of the growth of our commerce through their and other agencies, and that they could not live by our trade alone. This, however, will not be taken as full justification, and ought not to be, if, fostered by our aid in their birth and early growth on the promise of large return for the nursing, they afterward confer the leading benefits of their fuller development and extended connections on other places.

While we must hold our roads to their accountability to us in these matters of competition, we must also profit by the lesson their larger opportunities furnish, by efforts to concentrate such elements of commerce here as will keep them all under fullest obligations to us. In other words, we must realize that, to some extent, favors are reciprocal, and do our part to secure such connections as will force a large legitimate traffic through and from this place for the roads already centered here. —*Com. of Oct. 21.*

Chicago to Nashville.

The following from the *Western Railroad Gazette* will show the interest taken by Chicago in the Southern trade, which Cincinnati seems not to appreciate:

Chicago has satisfactory connections with but two southern cities, Mobile and New Orleans. While, as we have heretofore shown, Savannah, Charleston and Pensacola are as near to us as is New York, or nearer, to reach these ports we must take circuitous routes with many changes of cars, and incur delays and expenses which render travel unpleasant and traffic unprofitable. We have hitherto described the advantages which would accrue from the completion of the Blue Ridge Railroad, by giving closer and shorter connections to Charleston by way of Nashville. There is another project soon to be an accomplished fact, which may become one of the most important of our Southern connections, by materially diminishing the distance from Chicago to Nashville, by way of Evansville, Ind., and Henderson, Ky. That section of the route north of the Ohio is as yet only a possibility. There is, indeed, a railroad extending due north from Evansville 109 miles to Terre Haute and twenty-three miles beyond to Rockville. This, the Evansville & Crawfordsville Railroad, will be a central link of the through line. Now it is proposed to complete this line by building a railroad from Chicago due south to Danville in Vermillion county, on the Toledo, Wabash & Western Railroad, a distance of 125 miles. The Evansville & Crawfordsville Railroad would then connect Terre Haute and Danville by a road 47 miles long, and we would have a very direct line, not ten miles longer than an air line, from Chicago to Evansville, 281 miles, which would be our shortest connection with the Ohio river.

From Evansville to Nashville the road has been for some time progressing rapidly, and will soon be completed to Nashville. A letter which we have recently received from Mr. H. L. Shepherd, the General Superintendent of this line, will show very plainly the actual condition of this road. He says, writing from Nashville:

"We have now 20 miles built from Henderson, Ky., opposite Evansville, Ind., on the Ohio river, to Sulphur Springs, Ky., 9 miles more graded, which will be finished in two weeks, and will have 42 miles completed by the 1st of January on that end having 500

men at work. On this end we are operating the Edgefield & Kentucky Railroad 48 miles from Nashville to the Kentucky State line, the first 10 miles of which we own jointly with the Louisville & Nashville Railroad. At the Kentucky State line the Evansville, Henderson & Nashville Railroad commences. It is built to Hopkinsville, Ky., 25 miles. Thus by the 1st of January we will have only a gap of 27 miles to build to complete our line from Nashville to Henderson. In other words, our line will be 142 miles long when completed. We are now operating 93 miles; by the 1st of January we will have 115 miles in operation, and by the 1st of January, 1870, we will have our line through. Chester county, Ky., of which Hopkinsville is the county seat, raises more tobacco annually than any other county in the United States. It produced, according to last census, 11,000,000 pounds in one year.

Ten miles north of Hopkinsville we strike the coal mines, and run through a splendid coal country for 15 miles. There is one vein alone which crops out on the banks of the creek eleven feet thick. It is easily mined, and we are looking forward to it as our chief freight."

Another route connecting the Evansville & Nashville Railroad with Chicago it is proposed to make by building a road from Madisonville, about forty miles south of Evansville, to Shawneetown, and thence to Edgewood or some other station on the Illinois Central Railroad in Effingham county. This would not make the shortest line to Chicago, but it would give St. Louis a shorter connection with Nashville, and thence with other southeastern points, than it now possesses—connections which are, perhaps, more important to that city than to Chicago. Moreover, the line from Shawneetown would serve a large and fertile territory now destitute of railroad communication, and add largely to the business of the Illinois Central. As we write the news comes of a contract for the construction of a third line which will perhaps be the first to connect Chicago and Evansville. This is the Mattoon & Grayville Railroad, which extends from the crossing of the Chicago branch of the Illinois Central to a point on the Wabash only a few miles from Evansville. This is a somewhat shorter line than the one by Shawneetown, and if it is built the latter probably will not be.

But the road from Chicago to Terre Haute is one which is needed by Chicago, aside from its connections. It will be seen that there is a broad belt of country between the Illinois Central and the New Albany roads which has no direct connections with Chicago, although this is the natural market for its products. Aside from the grain and cattle which would burden the trains of such a road, it would have a large and constantly increasing business in transporting the coal from the mines in the vicinity of Brazil, east of Terre Haute,—fuel which, if all which is told us of its freedom from sulphur and its fitness for smelting iron ore is true, must be of vast importance in that coming day when the iron ore of Lake Superior shall be smelted in the furnaces of Chicago, then the great manufacturing city of the West.

The proposition made to the Hon. Edmund Rice to build the Chicago & St. Paul Road was signed by Mr. Benedict, of the firm of Lockwood & Co., New York; Mr. Burke, Director in the Northwestern Railway Co., and that successful railway contractor and builder, Selah Chamberlain.

Chicago, Burlington and Quincy R. R.

ORGANIZED UNDER THE CONSOLIDATION OF JULY 9, 1856, AND SUBSEQUENT PURCHASES.

[From the Financial Chronicle.]

The Chicago, Burlington and Quincy Railroad is a consolidation of the Chicago and Aurora and the Central Military Tract Railroads. The company acquired the Peoria and Oquawka and the Quincy and Chicago (formerly the Northern Cross) Railroads by purchase. The Lewiston branch was a donation. Previous to May 20, 1864, when the new line between Aurora and Chicago was opened to traffic, the cars of the company passed to and from Chicago over the Galena and Chicago Union Railroad, from the Junction to Chicago, a distance of 30 miles, for the use of which a stipulated percentage of earnings was paid.

The lines of the company, as now constructed, have a total length of 400 miles accounted for as follows:

Aurora and Chicago Railroad—	
Junction 30 miles west of Chicago to Aurora.....	13 miles.
Central Military Tract Railroad—	
Aurora to Galesburg.....	125 "
Peoria and Oquawka Railroad—	
Peoria, via Galesburg to Burlington.....	95 "
Quincy and Chicago Railroad—	
Galesburg to Quincy.....	100 "
Lewiston Branch Railroad—Yates City to Lewiston.....	30 "
Chicago Extension Railroad (new)—Aurora to Chicago.....	27 "

These several lines constitute by combination—

A line from Chicago to Burlington 204 miles.
A line from Chicago to Quincy.... 262 "
A line from Peoria to Burlington.. 95 "
—and two branches, viz.: one from Aurora to the Chicago Junction, 13 miles, and the other from Yates City to Lewiston, the latter to be extended north to Buda and Dixon, by the Dixon, Peoria and Hannibal Railroad Company, and south to Hannibal. The American Central Railroad, now on the eve of completion, will leave Galva on the main line, 142 miles from Chicago, and extend to New Boston, on the Mississippi, affording an additional feeder of the Chicago, Burlington and Quincy Railroad. At Burlington the Chicago, Burlington and Quincy Road connects with the Burlington and Missouri River Railroad, which will next year be completed to a junction with the Union Pacific Railroad at or beyond Omaha. At Quincy connection is made with the Hannibal and St. Joseph Railroad, which, with its extensions, already connects with the Central and Eastern Divisions of the Union Pacific Railroad. The Eastern connections are ample, including all the railroads leaving Chicago, and the more direct line leaving Peoria and forming part of the Columbus, Chicago and Indianapolis Central Railroad Line.

The operating accounts of the company for the years ending April 30, 1867 and 1868, compare as shown in the statement which follows:

	1866-7.	1867-8.
Pas'ng'r earn'gs.....	\$1,543,714 15	\$1,482,506 92
Freight.....	4,124,692 99	4,216,911 36
Mails and mis....	414,730 91	455,228 97
Tot. gr's e'ngs.....	\$6,083,138 05	\$6,154,647 25
Op'ng expenses.....	3,093,574 07	3,067,165 55
Net earnings.....	\$2,989,563 98	\$3,087,481 70

Showing a decrease in the operating expenses of \$26,408 52, and an increase in the net earning of \$97,917 72.

The company owned at the close of the two last years, respectively, the following amount of rolling stock: Locomotives, 119-122; passenger cars, 55-55; baggage, mail and express cars, 27-30; pay car, 0-1; house, freight and cattle cars, 1,659-1,817; Blue Line cars, 40-00; platform and coal cars, 493-555; grovers' and conductors' cars, 43-49; gravel cars, 40-40; tool cars, 2-2; pile driving car, 1-1; rubble cars, 86-99; hand cars, 123-123; and wrecking cars, 2-2—total cars, 2,571 2,774, being an increase of 203 in the last year.

The number of miles run by locomotives, and the number of passengers and tons of freight carried, with the mileage thereof, is shown in the following account:

	1866-7.	1867-8.
Miles run by passenger trains.....	644,560	710,560
Mi's run by freight trains.....	1,192,752	1,225,100
Miles run by o'er trains.....	584,254	713,894
Tot. mi's run by trains.....	2,421,566	2,648,554
Pas'ng'ers carried East.....	450,918	449,060
Pas'ng'ers carried West.....	466,902	458,978
Pas'ng'ers carried both ways.....	917,820	908,038
Passenger mileage.....	42,334 983	39,781,829
Tons carried East.....	593,823	508,583
Tons carried West.....	384,740	428,900
Tons carried both ways.....	978,563	937,489
Tonnage mileage.....	135,000,000	132,435,027

The earnings, expenses and profits per mile of road operated in the two years, as above, was as follows:

	1866-7.	1867-8.
Gross ear'ngs per mile.....	\$15,207 84	\$15,386 62
Operating exp'nses per mile.....	7,733 93	7,667 91
Profits (net earnings) per mile.....	7,473 61	7,718 71
Expenses, per cent.....	50 85	49 83
Taxes to gross ear'ngs.....	3.07 p. c.	3.24 p. c.

The income account for the years 1866-7, and 1867-8, shows the following results:

	1866-7.	1867-8.
Balance to credit		
May 1.....	\$588,691 55	\$1,905,496 00
Net earnings.....	2,989,563 88	3,087,481 70
Int. and exchange.....	63,723 70	43,081 39
Trustees Quincy & C. R. R.....		24,571 74
Tot. revenue.....	\$3,641,979 23	\$5,060,630 83

Disbursed as herewith stated:

	1866-7.	1867-8.
Rent of tracks and depots.....	\$14,288 14	\$10,970 00
Interest on bonds.....	406,758 31	363,554 93
Taxes, State and Co.....	113,335 74	128,305 90
U. S. tax on earnings, &c.....	72,278 94	71,231 20
Transfer office expenses.....	1,000 00	1,000 00
Dividend, May 15, 1866 and 1867.....	509,650 00	519,950 00
Nov. 1, 1866, and Sept. 5, 1867.....	509,650 00	519,950 00
Dividend, March 16, 1868.....		627,195 00
U. S. tax on divi'ds.....	62,922 10	197,205 10
Distribution of st'k, Sept. 15, 1867.....		1,079,800 00
Bonds purch'd for sinking fund.....	50,600 00	49,500 00
Tot. disbursements.....	\$1,736,483 23	\$4,568,662 03
Bal. to cr. Apr. 30.....	\$1,905,496 00	\$191,968 80

A further dividend of 5 per cent. was payable Sept. 15, 1868. The distribution of stock, Sept. 15, 1867, was equal to 20 per cent. on the capital, then amounting to \$10,399,010. The total cash dividends during last five years have been equal to 52 per cent., and the stock distributed equal to 50 per cent. The profits represented by stock distributions have been used in the road and equipment, the construction of the Burlington bridge and other improvements. The bridge at Quincy does not involve the finances of the company, being built by a separate organization, under arrangements with all the companies whose railroads terminate at that point. These bridges are about ready for use. The bridge at Quincy is about 4,000 feet, and that at Burlington about 2,237 feet long. Both rest upon stone piers, and the superstructure is entirely of iron, with draws for the passage of river craft. When completed they will be structures of great beauty as well as of very great importance to the business of the country as well as of the railroad companies. Of the total gross earnings of this company in 1867-68 (\$6,154,647 25), the amount contributed by business passing over it to and from the Hannibal and St. Joseph Railroad was \$607,597 90, and that to and from the Burlington and Missouri River Railroad \$391,069 50, or together \$998,667 40, nearly a sixth of the aggregate business of the company.

The financial condition of the company, as exhibited on the balance sheets of April 30, 1867 and 1868, is shown in the following statement, with the increase and decrease in the last named year:

	1867.	1868.
Capital stock.....	\$10,399,010 00	\$12,544,030 00
Funded debt.....	5,458,250 00	5,218,750 00
Due N. Cross R. R. bondholders.....		270,000 00
Unclaimed dividends.....	2,016 00	2,853 00
Unpaid acc'ts & pay rolls.....	299,492 81	296,850 02
Due agents & roads.....	64,033 21	83,099 82
Sinking fund.....	828,726 99	878,225 99
Bal. of income account.....	1,905,496 00	491,968 80

Total.....\$18,957,024 01 \$19,785,777 63

Against which amounts are charged, as follows:

	1866-7.	1867-8.
Construction (400 m.).....	13,246,710 70	14,507,344 47
Equipment.....	2,956,327 52	3,205,407 62
Due on Northern Cross R.R.....	270,000 00	270,000 00
Materials on hand.....	413,420 69	440,151 05
Pullman Palace Car Co. st'k, \$72,300.....		48,200 00
Steam, ferry & other boats.....	41,383 41	45,456 91
Burlington depot grounds & accretions.....		126,137 55
Chicago teams for transferring freight.....	4,500 00	4,500 00
Accounts and bills.....	203,373 96	307,817 97
Burl'n & Mo. R. R. pr'd st'k.....	180,023 22	299,649 01
Due from ag'ts and roads.....	64,728 94	64,435 6

Div. No. 13 and tax thereon.....	547,315 78	
Deposits in N. Y., Boston & Treasury....	746,575 13	253,012 64
Deposits with Trustees sk'g fund.....	282,664 86	231,664 86
Total.....	\$18,957,024 01	\$19,785,777 63

Railroad Earnings.

It is satisfactory to note a steady gain in the earnings of our railroads; satisfactory not only as an evidence of the prosperity of the roads, but also as indicating an improvement in the internal commerce of the country. While there is no advance in the rates of transportation, and yet an increase in the earnings, it is clear that a large amount of freight is passing over the roads; and this we take to be an incontestable evidence that, despite the current complaints and croaking, there is yet a steady gain in the general trade of the country. Within the last three or four years, there has been in progress a great deal of pioneer development which has been little noted in the Eastern cities. The pressure of taxation and high prices have forced population toward the outskirts of our newly settled sections, where cheap and fertile lands bestow a better return for labor than almost any other branch of industry; and the quiet of trade in the cities has also induced an unusual proportion of emigrants to seek their fortunes in the same direction. We have thus had an important settlement of population along the routes of the Western roads, who have raised a large amount of heavy freight to be transported. At the same time, the Western companies have stretched out their lines into the sparsely settled regions, carrying population with them. The expansion in the agricultural sections has naturally increased the traffic of the roads and of the lines connecting the West with the seaboard. From the returns of fourteen roads it appears that there has been an increase in the gross earnings of the first nine months, from \$45,593,356 in 1867 to \$49,879,064 in 1868; or nearly ten per cent. The earnings on the same roads for the month of September were \$7,829,797 against \$7,189,034 in 1867; which shows a ratio of increase about the same as that for the previous eight months. The following are the gross earnings of these companies for the month of September and the first nine months of the year, in 1867 and 1868:

Railroads.	September 1867	September 1868	Nine Months 1867	Nine Months 1868
A. & G. W.	\$483,857	\$477,795	\$3,819,460	\$4,463,841
Chi. & Alton	402,998	4 8,155	2,776,537	3 266,787
C. & N. W.	1,451,244	1,518,483	7,991,138	9 717,403
C. R. I. & P.	517,702	544,900	2,779,903	3 245,391
Ills. Central	738,530	873,500	4,995,931	5 139,112
M. & Cin'ti.	121,217	121,519	860,120	928,803
Mich. Central	464,778	456,974	3,151,440	3 256,327
M. S. & N. I.	487,867	512,521	3,202,210	3 607,079
M. & St. Paul	751,729	1,023,520	3,357,960	4 481,335
O. & Miss.	365,772	307,112	2,471,833	2 172,213
P., Ft. W. & C.	6 9,037	761,329	5,193,101	5 753,350
St. L. A. & T. H.	219,160	195,436	1,591,996	1 410,327
T. W. & W.	3 2,995	450,203	2,717,347	2 872,266
W. Union	123,409	97,338	521,140	564,752
Total.....	\$7,189,034	\$7,829,797	\$45,593,356	\$49,879,064

It will be observed that the principal increase is upon the roads running through newly settled country. The increase, for the nine months, on the Chicago and Northwestern Road is \$1,726,265, or about 27 per cent.; this gain, however, is largely due to the transportation of materials for the construction of

the Pacific Railroad, and to the flow of population and trade along the route of that road with which the North-western connects. On the Milwaukee and St. Paul road there has been an increase, for the nine months, of about \$923,395, or about 27 per cent. On this road, there has been an extension of mileage from 735 miles to 820 miles; which, however, only partially accounts for the increase of earnings, the company having pre-eminently profited from the development of new country opened by it. About three-fifths of the continued increase on the fourteen roads has occurred on these two lines, the balance being unevenly distributed among the remaining twelve companies, nine showing a moderate increase and three a decrease.

In the earnings for September there has been a decrease on five roads, viz: Atlantic and Great Western, Michigan Central, Ohio and Mississippi, St. Louis, Alton and Terre Haute, and Western Union. On the others, the largest ratio of increase has been on Chicago and Alton, Illinois Central, Milwaukee and St. Paul, Fort Wayne, and Toledo, Wabash and Western. The large amounts of produce pressed forward to the grain centers, immediately after the harvest, is the principal cause of the gain in the earnings during the last month. For the last two or three weeks, however, there has been a falling off in the receipts of many roads, owing to the wet weather, and also to the fact that the fallen price of grain has checked the transportation of produce; for this reason, it is quite likely that the exhibit of earnings for October may not be so favorable as that for September. There is, however, an unusually large stock of grain in the hands of the farmers, the forwarding of which, and especially of the unprecedented corn crop, must give active employment to the roads for the next few months, and keep the earnings on a liberal scale.

—Financial Chron.

Taxes from some Specific Articles.

As a matter of interest and curiosity we give the following results from the Report of the Commissioner of Internal Revenue; the following view of the specific taxes on cotton, petroleum, spirits, and tobacco. It is, of course, for last year:

The number of persons paying tax as peddlers during 1865, were 27,878; 1866, 43,196; 1867, 45,649.

RAW COTTON.

1865.....	\$1,722,983 48
1866.....	18,409,654 90
1867.....	23,769,078 80

The tax was two cents per pound until August 1, 1866, when it was increased to three cents, where it remained until September, 1867, when it was reduced to two and a half cents per pound. The receipts during 1866, represent cotton grown at different times which could not, by reason of the war, before that time reach the market. The receipts of 1867, substantially represent the product of that year, nearly two million bales.

REFINED PETROLEUM AND COAL OIL.

1865.....	\$3,047,212 77
1866.....	5,317,396 05
1867.....	5,904,761 71

Oil distilled from coal, asphaltum or shale, paid fifteen cents per gallon until August, 1866; after that ten cents. Naphtha and the

lighter oils have, at different times, been variously taxed, but at successively lower rates.

In 1864, 22,015,732 gallons of refined petroleum were brought to charge, and 571,945 gallons of refined coal oil; in 1865, 14,756,069 gallons of refined petroleum, and 63,992 gallons of refined coal oil; in 1866, 25,890,694 gallons of petroleum, and 928,380 gallons of coal oil; in 1867, 24,993,535 gallons of petroleum, and 768,925 gallons of coal oil.

The amount in bonded warehouse on the 30th of June, 1867, was in excess of that at the close of the preceding fiscal year; the amount exported during 1867, was nearly double that for 1866.

It is believed that the tax has not only been avoided in various ways through a defect in the law, but that the law itself has been frequently violated, with great loss to the revenue. The high rate of tax offers strong temptation both to refiners and officers.

CIGARS, CIGARETTES, AND CHERROOTS.

1865.....	\$3,087,421 51
1866.....	3,476,236 86
1867.....	3,661,984 39

For ten months of the year 1865, the receipts were from specific taxes, graduated by different values of the cigars. On March 3, 1865, a uniform rate of \$10 per thousand was imposed. By the statute of July 13, 1866, the tax became partly specific and in part *ad valorem*, and by that of March last, the tax of \$5 per thousand was adopted, which was a very large reduction from the then existing duty.

CHEWING AND SMOKING TOBACCO.

1865.....	\$8,017,020 63
1866.....	12,339,921 93
1867.....	15,245,477 81

FERMENTED LIQUORS.

1865.....	\$3,657,181 06
1866.....	5,115,140 49
1867.....	5,819,345 49

The tax of one dollar per barrel has been continued during the three years.

DISTILLED SPIRITS AND BRANDY.

	Distilled Spirits.	Brandy.
1865.....	\$15,995,701 66	\$12,005 33
1866.....	29,198,578 15	283,499 84
1867.....	28,296,264 31	868,145 03

For the first six months of the fiscal year 1865, the tax on distilled spirits was \$1 50 per gallon; afterwards \$2 00. The tax on brandy has varied from fifty cents to two dollars.

The amount of spirits forfeited has been largely in excess of that during any year preceding, and probably equals the whole amount prior to June 30, 1866. The receipts from forfeited spirits are not included in the above.

The frauds connected with the production and removal of spirits are of very alarming extent and character, and will be considered more fully in another part of this report. The amount of spirits in bonded warehouse on the first of July, 1866, was 6,081,551 gallons; on the first of July, 1867, 17,887,272 gallons. The amount out of warehouse under transportation bonds on July 1, 1866, was 3,133,211 gallons, and on July 1, 1867, was 3,914,444 gallons. The amount of spirits received into "class 2 warehouses" so called, for the manufacture of medicines, cosmetics, cordials, etc., for exportation, was 892,727 gallons. The amount exported in bond was 4,654,816 gallons. The amount upon which tax was paid

was 14,148,132 gallons. From this it will appear that the amount of distilled spirits which was reported to revenue officers during the year 1867, and which can be accounted for, is 32,299,629 gallons. The difference between this amount and the actual production measures the product which reached the market through fraud.

How much Currency is Needed?

To throw some light on this question, we give the following extracts from the speech of the Hon. JOHN A. GARFIELD, delivered in the House of Representatives, May 15, 1868. This gentleman is one of the few who may be claimed at once by both scholars and statesmen:

HOW MUCH CURRENCY IS NEEDED.

I should be satisfied to rest on these propositions without further argument, were it not that the declaration is so often and so confidently made by members of this House, that there is not only no excess of currency, but that there is not enough for the business of the country. I subjoin a table, carefully made up from the official records, showing the amount of paper money in the United States at the beginning of each year from 1834 to 1868, inclusive. The fractions of millions are omitted:

Millions.	Millions.
1834..... 95	1852 150
1835..... 104	1853..... 146
1836..... 140	1854..... 205
1837..... 149	1855..... 187
1838..... 116	1856..... 196
1839..... 135	1857..... 215
1840..... 107	1858..... 135
1841..... 107	1859..... 193
1842..... 84	1860..... 207
1843..... 59	1861..... 202
1844..... 75	1862..... 218
1845..... 90	1863..... 529
1846..... 105	1864..... 636
1847..... 106	1865..... 948
1848..... 129	1866..... 919
1849..... 115	1867..... 852
1850..... 131	1868..... 767
1851..... 155	

To obtain a full exhibit of the circulating medium of the country for these years, it would be necessary to add to the above, the amount of coin in circulation each year. This amount cannot be ascertained with accuracy, but it is the opinion of those best qualified to judge, that there were about two hundred million dollars of gold and silver coin in the United States at the beginning of the rebellion. It is officially known that the amount held by the banks from 1860 to 1863 inclusive, averaged about ninety-seven million dollars. Including bank reserves, the total circulation of coin and paper never exceeded \$400,000,000 before the war. Excluding the bank reserves the amount was never much above \$300,000,000. During the twenty six years preceding the war the average bank circulation was less than one hundred and thirty-nine million dollars.

It is estimated that the amount of coin now in the United States is not less than \$250,000,000. When it is remembered that there are now \$106,000,000 of coin in the Treasury, that custom duties and interest on the public debt are paid in coin alone, and that the currency of the States and Territories of the Pacific coast is wholly metallic, it will be seen that a

large sum of gold and silver must be added to the volume of paper currency in order to ascertain the whole amount of our circulation. It cannot be successfully controverted that the gold, silver, and paper, used as money in this country at this time, amount to \$1,000,000,000. If we subtract from this amount our bank reserves—which amounted on the 1st of January last to \$162,500,000, and also the cash in the national Treasury, which at that time amounted to \$134,000,000—we still have left in active circulation, more than seven hundred million dollars.

It rests with those who assert that our present amount of currency is insufficient, to show that one hundred and fifty per cent. more currency is now needed for the business of the country than was needed in 1860. To escape this difficulty, it has been asserted, by some honorable members, that the country never had currency enough; and that credit was substituted before the war to supply the lack of money. It is a perfect answer to this, that in many of the States a system of free banking prevailed: and such banks pushed into circulation all the money they could find a market for.

RELATION OF CURRENCY TO FINANCIAL PANICS.

The table I have submitted shows how perfect an index the currency is, of the healthy or unhealthy condition of business, and that every great financial crisis, during the period covered by the table, has been preceded by a great increase, and followed by a great and sudden decrease in the volume of paper money. The rise and fall of mercury in the barometer is not more surely indicative of an atmospheric storm, than is a sudden increase or decrease of currency indicative of financial disaster. Within the period covered by the table there were four great financial and commercial crises in this country. They occurred in 1837, 1841, 1854, and 1857. Now, observe the change in the volume of paper currency for those years.

On the 1st day of January, 1837, the amount had risen to \$149,000,000, an increase of nearly fifty per cent. in three years. Before the end of that year, the reckless expansion, speculation, and over trading which caused the increase, had resulted in terrible collapse; and on the 1st of January, 1838, the volume was reduced to \$116,000,000. Wild lands, which speculation had raised to fifteen and twenty dollars per acre, fell to one dollar and a half and two dollars, accompanied by a corresponding depression in all branches of business. Immediately after the crisis of 1841 the bank circulation decreased twenty-five per cent., and by the end of 1842 was reduced to \$58,500,000, a decrease of nearly fifty per cent.

At the beginning of 1853 the amount was \$146,000,000. Speculation and expansion had swelled it to \$205,000,000 by the end of that year, and thus introduced the crash of 1854. At the beginning of 1857 the paper money of the country reached its highest point of inflation up to that time. There were nearly two hundred and fifteen millions, but at the end of that disastrous year the volume had fallen to \$135,000,000, a decrease of nearly forty per cent. in less than twelve months. In the great crashes preceding 1837 the same conditions are invariably seen—great expansion, followed by a violent collapse, not only in paper money, but in loans and discounts; and those manifestations have always been accompanied by a corresponding fluctuation in prices.

In the great crash of 1819, one of the severest this country ever suffered, there was a complete prostration of business. It is recorded in Nile's Register for 1820 that in that year an Ohio miller sold four barrels of flour to raise five dollars, the amount of his subscription to that paper. Wheat was twenty cents per bushel and corn ten cents. About the same time Mr. Jefferson wrote to Nathaniel Macon:

"We have now no standard of value. I am asked eighteen dollars for a yard of broad-cloth which, when we had dollars, I used to get for eighteen shillings."

Road Locomotives.

No sooner was the first flush of triumph over which celebrated the introduction and practical efficiency of the railway system, than attention reverted to the old means of locomotion, which had been so suddenly cast into the shade. The great routes of inland intercommunication still existed, under the form of canals and public roads, and the question not unnaturally arose whether they might not be adapted for their original purpose upon an improved and increased scale by the application of the new power. In a word, could not steamboats be used upon canals, and locomotives on public roads. To assert that this interrogatory has been successfully replied to in the affirmative would be untrue, and it would be equally false to state that complete failure has attended all the efforts made at intervals to accomplish the desired result. Leaving out of consideration for the present the instance of canal steam navigation, it may be safely mentioned that although the application of steam power to ordinary road locomotion has not yet been sufficiently successful to warrant it being styled *au fait accompli*; yet enough has been done to encourage the expectation that the end may be attained at no very distant period. Among the numerous descriptions of locomotives constructed specially for meeting and overcoming the obstacles belonging exclusively to this kind of traffic may be mentioned a recent application of M. Rousseau, a mechanical engineer of Marseilles. He discards the old Roman type of axle and wheel, and constructs the large hind wheels of the road locomotive so as to revolve freely upon a fixed axis. These wheels are driven by belts, one to each wheel, and they can act either separately or in combination, or in opposite directions.

It has been demonstrated by experiment that one of the greatest evils to be surmounted with these locomotives is the tendency of the wheels to slip, especially when ascending an incline, and when the roads are greasy, damp, or frozen, and when any of the trailing wheels become imbedded in ruts. In order to obviate these contingencies, the inventor has suppressed the bogie frame in front, which was simply pushed on by the action of the driving wheels, and substituted another, driven directly by steam power. By this arrangement, the leading wheels have complete freedom of action; this axle can be turned until it assumes a position nearly at right angles to that of the trailing axle, and the engine can be turned right round within the distance of its own length without the least difficulty. Another advantage accruing from this arrangement is that the adherence of the locomotive and its tractive force is very much increased, since not only is the whole weight of the engine and its charge utilized,

but there is also direct steam action upon all the *points d'appui* upon which the load is supported. There are consequently four points of contact between the engine and the ground, each of which is moveable independently of the other, a condition which is favorable to the steering power, and does not allow the wheels to get stuck in the manner which is so notorious.

A very common objection to the use of road locomotives is that the noise frightens the horses, and the smoke blackens the houses, but after the experience gained from the engines employed on the Metropolitan Railway, the latter objection is not valid, and the former would cease to become so after a certain time. It appears that the locomotive of M. Rousseau works without much noise, and without any smoke of an appreciable amount. It has been used in the midst of ordinary road traffic, and has been found to turn the angles of streets with perfect ease even when dragging after it four baggage wagons, each containing about five tons weight of contents. For transporting marine boilers, some weighing upwards of twenty-five tons, it has also been proved to be very serviceable, as it affords a concentration of tractive and haulage power not to be obtained by any number of horses. While there is no doubt but that steam power might be employed upon common roads at small speeds, it is extremely improbable that it will be capable of application upon a scale admitting of a velocity exceeding that of the fast mail coaches of the olden times. As all work performed by steam may be said to consist of two quantities, weight and velocity, it is evident that the former is the most important one to attend to, when that power is adapted to ordinary road traffic.—*London Mechanics' Magazine*.

THE RAILROAD SURVEY.—The corps of engineers under Mr. DeKosta, are now at work locating the line of the St. Paul and Lake Superior Railroad from the Dalles down to the navigable waters of Lake Superior.

Such a number of lines have been run that the country in the neighborhood of the Dalles is represented as nearly cleared. They have about thirty men at work, a majority of whom are choppers, and per consequence the timber has been brought low.

One line is being located into the village of Fondulac; on this route they come down the valley close to the river with an average grade of fifty feet to the mile. On this line there must necessarily be some very heavy curves.

The other line pointing to the head of the lake, starts from the Dalles and runs nearly east, crossing the Reserve road near its crossing of Midway river; from there it trends a few degrees to the south and passes about four miles back of Fondulac, and from there making as near as practicable an air line for Rice's Point, or Duluth; either of which may by this means be made the objective point.

We are not informed what will be the grade on this route, but from our personal knowledge of the country, know that in some sections of the work there will be some tall climbing and heavy rock cutting to be done.

All our readers will no doubt join us in the hope that the actual work of building on this end will be commenced next spring, as any work requiring as many pair of hands as this necessarily will, must infuse life and activity not only on the other side of the bay, but here as well.—*Superior Gazette*.

Proposed Railroad Suspension Bridge Across the Hudson River.

The *Scientific American*, of Oct 28, furnishes an engraving of the projected Hudson River Railroad Bridge, and furnishes the following details in reference to this proposed work:

Our engraving presents a view of the new suspension bridge proposed to be thrown across the Hudson River to connect the great West directly with New York and Boston. The engraving was taken from the drawings of General Edward W. Serrell, the engineer-in-chief of the bridge company. On the 8th of this month the board of engineers and directors made an excursion on the river to examine for a proper site. The precise locality has not yet been determined, but it will be somewhere between Verplank's Point and Buttermilk Falls. The proposed bridge is one link in the railway intended to connect the Erie road with railroads on the east side of the river. The road will run from Turner's, on the Erie railroad, to Derby in Connecticut.

The following are some of the dimensions of the proposed bridge: Clear span, 1,600 ft.; length of bridge between towers, 1,665 feet; total length, including approaches, 2,499 feet; height of bridge above high-water, 155 feet; height of towers above the water, 280 feet; working safe load for the railroad lines, 2,400 tons; working safe load for the highways, 2,880 tons; total safe load for the bridge, 25,171 tons; miles of steel wire in cables, 70,302; total weight of iron and steel in the bridge, 17,005 tons; total amount of masonry, 58,084 cubic yards; total suspended weights, 9,651 tons.

There will be twenty cables, in four systems; each cable will be 14 inches in diameter. The bridge will carry at one time 32 passenger cars; it would carry safely 34,560 people and 60 locomotives, if they could be placed upon it at once; 18,000 people and 53 locomotives would fill it. From the dimensions given above, it will be seen that this bridge will be longer than any one yet built on the continent, though a span of 1,610 feet is projected in the bridge undertaken to be built across the St. Lawrence at Quebec.

These figures will show the enormous strength it is proposed it shall possess. New York city and every part of the country, east and west, are interested in it, and it is to be hoped the work upon the ground will soon be entered upon vigorously.

Exploration of New Mexico.

WASHINGTON, Oct. 14.—The Commissioner of the General Land Office has received advices from United States astronomer Darling, designated by the Secretary of the Interior to determine the survey and mark the northern boundary of New Mexico, stating that the party had reached the Rio Grande, 148 miles west of the initial point, on the 6th ultimo. The eastern part of the line passes over a region of country which has never before been traversed by white men. It was generally supposed that it was a beautiful rolling prairie. Col. Darling represents the first 20 miles of the line west of the initial point as a rolling plain covered with a luxuriant growth of nutritious grass, but destitute of wood or water. The next fifty miles of the line is over an exceedingly rugged region; the general character of the country is comparatively

level, but it is intersected by numerous canyons, with almost perpendicular walls, in some instances 1,200 feet high. Deposits of iron occur in great abundance over all this distance, and was sufficient to cause a change of 26 degrees in the magnetic needle in going the distance of a quarter of a mile. The Cimarron River, which the party had occasion to traverse for over 150 miles, is almost dry during the summer season, the water standing only in stagnant pools. The valley of that stream is from one-half to five miles wide, and will become a most valuable agricultural region, while the uplands are clothed with a fine growth of good grass, and will become valuable as grazing lands. Approaching the head waters of the Cimarron River, water becomes more plentiful. For six weeks the party were compelled to supply themselves with water from pools formed in the ledges of rocks, collected by rains; but in coming near the Raton Mountains an abundant supply of pure cold water was found in the small mountain streams, which resemble those in Pennsylvania. The line crosses the summit of the snowy range of the Raton Mountains, 135 miles west of the initial point. The party crossed the summit August 30, and it was then covered with snow. The line passes through the town of La Costella, leaving the largest portion in New Mexico; it is a Mexican town, constructed of adobes, or dried, unburnt clay blocks, about three times the size of common brick, and contains some sixteen hundred inhabitants. It is situated on the eastern border of San Luis Valley, watered by the Rio Grande and its tributaries, and is one of the finest agricultural and grazing districts in the United States. This valley contains a large number of settlers, who engage in agriculture to a limited extent, but are chiefly interested in raising sheep and cattle, a branch of industry which proves highly remunerative, from the fact that stock graze in the valleys throughout the year and require no feeding. Notwithstanding the reputed hostility of the Indians in that quarter, the party was not molested beyond being compelled to divide supplies with a war party of Kiowas. The astronomer has pursued his labors with energy, and expects to complete his work by the middle of November. The whole length of the line is 320 miles.

Receipts of the Western Union Railroad Company for the week ending October 21:

	1868.	1867.	Inc.	Dec.
Freight.....	\$15,787 46	\$21,113 63	.....	\$1,325 18
Passengers.....	5,727 65	3,947 67	.....	\$1,739 98
Express and Tel.	350 00	376 00	.....	220 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$23,240 10	\$26,046 30	.....	\$1,739 98 \$5,516 18

Receipts from January 1, to October 21:

1868.....	\$631,261 67
1867.....	599,768 44
Increase.....	\$31,493 23

Receipts of the Western Union Railroad Company for the week ending October 14:

	1868.	1867.	Inc.	Dec.
Freight.....	\$16,373 36	\$20,749 97	.....	\$4,376 61
Passengers.....	5,163 95	4,165 07	.....	\$998 88
Express and Tel.	350 00	500 00	.....	220 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$22,262 31	\$25,800 04	.....	\$998 88 \$4,596 61

Receipts from January 1, to October 14:

1868.....	\$609,021 57
1867.....	573,222 00
Increase.....	\$35,799 57

Funeral of John Lee Poston.

[From the Elizabethtown (Ky.) Telegraph, Oct. 16, 1868.]

The remains of John Lee Poston reached this city on last Saturday. Mr. Poston was born in Elizabethtown on July 6, 1835, where he remained until 1851, when he went to Nashville, Tenn. In November, 1857, he sailed from New Orleans for San Francisco, and thence proceeded to the Southern portion of Arizona Territory, for the purpose of joining his brother, Col. Charles D. Poston, one of the few successful pioneers of that wild and dangerous region, who was, we believe, at that time Secretary of the "Sonora Exploring and Mining Company." Joining his brother, he was stationed at Heintzelman Mine, where he was murdered by Mexicans on the 23d of July, 1861. There were three men staying with him, a young Englishman and two Germans, all well armed and provided with a good supply of ammunition. On the day before his death, he spent the day with his brother, a short distance from the mine, returning in the evening, well armed and mounted. After dinner on the next day, it appears that he and the two Germans had fallen asleep, leaving the doors unfastened, and the Mexicans, watching their opportunity, slipped in and assassinated them with knives before they had any knowledge of danger. Young Poston was found lying on the counter as if asleep, with a stab to the heart, and his hand holding a handkerchief to the ghastly death wound.

The remains were taken from the residence of his brother, S. J. Poston, Esq., to the Methodist Church, where religious services were held—Rev. W. W. Lambuth preaching the funeral sermon.

After the services the remains were conveyed to the city cemetery, under the escort of the Masonic Fraternity and the Elizabethtown band, and interred with full Masonic honors.

MASONIC TRIBUTE.

At a called communication of Morrison Lodge No. 76, Free and Accepted Masons, held on November 11, 1868, the following resolutions were adopted:

WHEREAS, It has pleased Almighty God, in his infinite wisdom and power, when none was near to pity except the All-Seeing Eye, to call away from our midst, by the unknown hands of violence, our beloved brother, John Lee Poston;

Resolved, That in this unfortunate event, we but see an humble typification of one of the saddest and severest bereavements which Masonry ever suffered, and, while we deeply deplore the cruel and untimely death of our brother, we are happy to know that the token which recognizes a Mason was found with his body; and we humbly hope and believe that he was at his death as zealous in the work as was his illustrious prototype.

Resolved, That we tender to his family the sympathy and condolence of our Fraternity.

Resolved, That a copy of these resolutions be furnished the family of our deceased brother; also, to the *Kentucky Telegraph*, *Kentucky Freemason*, *Louisville Journal*, *Courier* and *Democrat*, with a request that they publish the same.

JAMES MONTGOMERY,
RICHARD B. B. WOOD,
Committee.

RICHARD B. B. WOOD, Sec'y pro tem.

Address to the National Board of Trade.

St. Louis, October 22.

A committee appointed a short time ago by the St. Louis Board of Trade to prepare propositions to be presented for discussion to the National Board of Trade, at its meeting in Cincinnati on the 2d of December, have made the following report:

The Board of Trade of St. Louis proposes to the National Board of Trade to declare:

First—In favor of an early return to specie payments, and the adoption by the National Government of measures for that purpose.

Second—In favor of the adoption by the General Government of measures to cheapen and extend telegraphic communications between the different parts of the country by making it a part of its postal system.

Third—In favor of the removal by the General Government of all obstructions to the navigation of the Mississippi River and its navigable tributaries, and to recommend to all municipal authorities located thereon such modification and reduction of local charges as shall render the commerce of said river as free as possible.

Fourth—In favor of the continuance by Congress of such subsidies to the Union Pacific Railroad, Eastern Division, as shall be sufficient to provide for its extension to the Pacific Ocean as a distinct road.

Fifth—In favor of declaring the cities of St. Louis, Cincinnati and Chicago ports of entry, under such restrictions and regulations only as shall protect the government against fraud.

Senator John B. Henderson made an elaborate speech at Mercantile Library Hall last night, to a very respectable audience, in which he discussed the National and State questions and policies at a considerable length.

The route of the Intercolonial Railway of Canada, to be built by the New Dominion, is that known as the North Shore or Major Robinson's route, which the Government has decided is the only one that provides, in a military and commercial point of view, for the national objects involved in the undertaking. The Western route, which seemed to present claims for special favor, was objected to as running so near the Maine frontier that it would be useless as a military road in case of war; while the Central route traversed, for the most part, an uninhabited wilderness. The North Shore line touches at the principal Gulf ports, and is the shortest of the three, the distance from Quebec to Halifax being 656 miles. But 171 miles are already built, so that the portion remaining to be constructed is only 485 miles—of which 167 miles are in the Province of Quebec, 238 in New Brunswick, and 80 in Nova Scotia. The total cost of the line is estimated at \$23,000,000, or \$4,000,000 more than for the Western route. The British Government guarantees the interest on \$15,000,000 at 4 per cent., and there are \$5,000,000 at 6 per cent. not guaranteed.

There is renewed activity in railroad matters at Kalamazoo. While Ransom Gardner is advertising for 500 additional railroad hands to work on the road between Otsego Allegan and Grand Rapids, the Grand Rapids & Indiana Railroad Company are busy laying the road bed through that village, which they have nearly completed. Both roads are on a race for Grand Rapids.

IS THE EMPLOYER RESPONSIBLE FOR ACCIDENTS TO EMPLOYEES.—The case of Lucy A. Warner, administratrix, &c., against the Erie Railway Company came before the Court of Appeals yesterday. The husband of the plaintiff in this suit, a baggage-master on the defendant's trains, was killed on a train through the breaking of a bridge over the Conhocton. The evidence showed that the bridge fell through dry rot, that it was between nine and ten years old, that the bridge-master had examined the bridge by tapping and had not discovered the defect. The Court below charged that if the Board of Directors, by the exercise of that skill and prudence which is to be expected of persons occupying the said position, should have ascertained the defect in the bridge, the failure on their part to ascertain would make the defendants liable. The jury gave the plaintiff \$5,000. The defendants appeal, and claim that an employee in accepting employment always accepts the risks arising from negligence of his co-employees, and that the railway having constructed a good bridge and provided competent men to inspect and repair it when necessary, can not be held responsible to one employee for the negligence of the others, and that therefore the Judge's charge was wrong. Even if there were some liability, it could only arise after notice of the defect to the Board of Directors. On the other hand the plaintiff, admitting as a rule that the plaintiff could not recover from the company for the consequence of the negligence of co-employees, claims that a duty rested on the employer to use due care in providing suitable appliances for the carrying on of the business, and that if the directors either knew or ought to have known under the circumstances that these appliances were unfit, the company was liable; and that the jury decided by their verdict that the directors ought to have known of the insecurity of the bridge. Decision reserved.—*N. Y. Tribune.*

A curious calculation is published by a M. Hauchecorne, as to the comparative proportion to the receipts of the working expenses of the railways of Europe in 1865. M. Hauchecorne states the proportion as follows: Austrian, 38.8 per cent.; Prussian, 40.4 per cent.; French, 40.7 per cent.; Netherlands, 43.7 per cent.; Danish, 47.1 per cent.; German States, 47.6 per cent.; English, 47.9 per cent.; Spanish, 55 per cent.; Portuguese, 55.1 per cent.; Russian, 59.4 per cent.; Italian, 59.7 per cent.; and Swedish, 59.8 per cent. Of course, feebleness of traffic or the reverse has a good deal to do with the proportions which Mr. Hauchecorne has so painstakingly established.

The Rock Island extension is making rapid progress towards its western terminus, which point will be reached, it is expected, some time next month. The line already crosses Middle River, eighty miles east of Council Bluffs, and the track is being laid at the rate of three miles a day. We shall soon have a competing line for the traffic of the Union Pacific, and a large accession of business from the rich central and western portions of Iowa hitherto destitute of adequate and direct means of communication with Chicago as a market and center of Western trade.—*Chicago R. R. Review.*

THE DAVIES SCREW.—We have been shown samples of the above screw, and concur in all that the inventor claims as the superior advantages of his screws over those of other manufacture. The factory is at Dayton, O., and we commend all who use the article to be sure and get the right brand. The circular of the Screw Company says:

"All wood screws heretofore made have *straight cores*; that is, with cores, or central solid parts, having parallel sides from about the second spiral of the thread, to within two spirals of the point, the point being formed by a series of steps, or off-sets, instead of a cone, as may be seen in the drawing of the common and English screws, in the cut at the head of this paper. Such screws have their defects, well known to all users of them, viz.: They are liable to turn aside in driving; the thread being shallow, they are easily torn from soft wood by an extra turn of the screw driver, or a sudden strain, and are *weakest in the center*, where they should be the strongest, breaking generally between the second and third spirals.

"To meet these serious defects, the Davies screw has been invented. It will be seen by referring to the drawing above, that the core is *tapered its whole length*, while the edges of the thread are kept parallel, or same width as the shank, to about the second convolution from the point, where the whole dies out into a point exactly in the center of the axis. These peculiarities can be best seen in the screw itself, by turning the point toward the eye. This arrangement gives the greatest strength and the best possible holding power, combined with the most perfect gimlet point."

The St. Paul Press publishes a letter from C. C. Andrews strenuously urging the early completion of the Northern Pacific as a competitor of the Union Pacific for the Asiatic trade, and as a necessity to the development of Northern and Western Minnesota. The scheme of the Union Pacific to secure from Congress a subsidy for their Sioux City Branch, he thinks is to injure, if not wholly destroy the prospects of Government aid for the Northern Pacific.

The graduation, masonry and bridging of the Wilmington and Reading Railroad, between Wilmington and Birdsboro', which was let to Messrs. W. M. Wiley & Co., will be completed by the 10th of December next. The length of the road is 63 3-4 miles, and the contract price, exclusive of the bridge over the Schuylkill, \$506,610 26.

The following gentlemen have been elected directors of the Monongahela Valley Railroad Company: Dr. Alex. Patton, Dr. J. S. Van Voorhis, J. S. Prinkle, W. Frye, Martin Briggs, Jacob Hayes and James Gordon. President, Capt. Thos. W. Briggs, Pittsburg. Vice President, Wm. Price, West Virginia.

O. C. R. R.—Ben. Holliday and Co have purchased the contract of A. J. Cook & Co., for constructing the Oregon Central (east side) Railroad. Four hundred Chinamen are to be brought from California and set at work immediately.—*Oregon Sentinel*.

Hartford has voted \$500,000 to the stock of the proposed Connecticut Western Railroad, and the same amount to the Connecticut Valley Railroad.

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BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2 3/4 inches in width, and under. For Tickets over 2 3/4 inches in width.

SIZE NO. OF	PRICES.	SIZE NO. OF	PRICES.
NO. FORMS.		NO. FORMS.	
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati, O

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

W. H. MITH, Pres't, C.&I.C. Railway, Columbus, O.
H. RIDENOUR, Pres't, C.&I.J.R.R. College Cor. Ind
J. M. LUNN, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLS, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
G. W. SMITH, Gen. Ft. Agt. C. & I. C. R.R., Indianapolis
Aug. 2, 1896.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

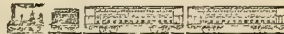
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6:15am.....	7:10pm
" Dayton.....	8:35 ".....	9:30 "
Arrive West Salem.....	1:50pm.....	4:53am
" Leavittsburg.....	4:55 ".....	7:35 "
" Meadville.....	7:35 ".....	11:10 "
" Susquehanna.....	7:48am.....	11:29pm
" Paterson.....	2:25pm.....	6:03am
" New York.....	3:15 ".....	7:00 "
" Boston.....	5:45am.....	4:45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts. Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

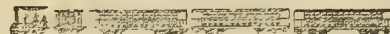
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at the north st corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1896, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 18:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change, cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Steam Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 light

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 2:30 p.m. Without change of cars from New York to Harrisburg.

5:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN from the West, leaving Pittsburg at 4:30 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:40 a.m.; Allentown at 6:00 a.m.; Easton at 7:00 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown at 12:30 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:30 p.m. Through cars from Harrisburg to New York. Arrives in New York at 0:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7:00 A. M.	9:10 A. M.
Springfield & St. Joseph Ex.....	12:00 P. M.	4:30 P. M.
St. Louis & Chicago Ex.....	4:55 P. M.	12:15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

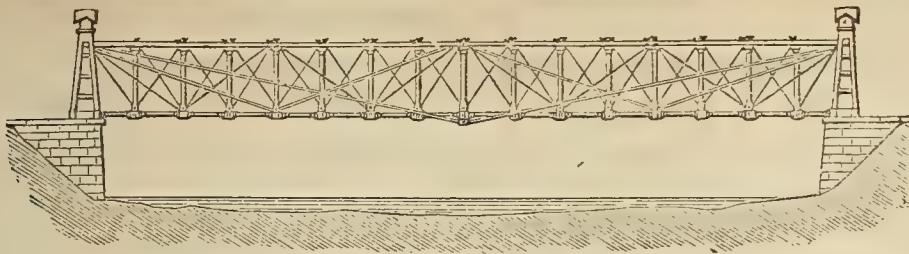
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5:15 P. M.	5:05 A. M.
Harrison Accommodation.....	10:10 A. M.	2:25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and construction of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish tender wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

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STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

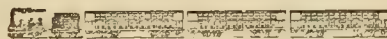
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,

No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.

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Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

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Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.

300 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	6 45 A. M.	
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Birming House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI, 7 40 a.m.	10 10 p.m.	4 00 p.m.	
Arrive SEYMOUR, 12 00 p.m.	2 40 a.m.	8 10 "	
Leave " 12 20 p.m.	2 10 "		
Arrive VINCENNES, 5 15 "	6 35 "		
Leave " 5 20 "	6 40 "		
Arrive ODIN, 9 35 "	10 30 "		
Leave " 9 45 "	10 40 "	6 30 a.m.	
" SANDOVAL, 9 55 "	10 50 "	6 40 "	
Arrive ST. LOUIS, 1 00 a.m.	1 30 p.m.	9 40 "	
Trains Arr. at Cincinnati, 6 10 a.m.	11 30 p.m.	12 00 m.	

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE, General Superintendent.**Best Route to St. Louis and Chicago****INDIANAPOLIS, CINCINNATI AND LAFAYETTE RAILROAD**

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted.) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	2 20 am
Cairo and St. Louis Express.....	2.20 pm	4.05 m
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4.05 pm
Chicago Lightning Express.....	7.15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.0 am	8.35 am
Cornersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.50 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.**MOSELEY'S WROUGHT IRON ARCH****BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

Successor to

T. McDANIEL & HORNER,

**Locomotive and Railroad****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works
June 9**THE SCHENECTADY LOCOMOTIVE WORKS,**

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.**PASCAL IRON WORKS.**

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 16 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

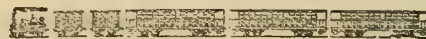
Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!**FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M. and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:
THURSDAY, OCTOBER 29, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " " per month.....	3 00
" " " six months.....	12 00
" " " per annum.....	20 00
" column, single insertion.....	5 00
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" " " six months.....	110 00
" " " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:40 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:00 P. M.	5:50 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express.....	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION			
Connersville, Cambridge City and			
Indianapolis Mail.....	6:15 A. M.	10:20 A. M.	
Connersville, Cambridge City and			
Indianapolis Express.....	5:30 P. M.	7:20 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

The Iron and Coal Region of Indiana.

A few days since we received a letter from a distinguished gentleman of Indiana, giving us an account of a very rich and interesting deposit of iron and coal in that State. We did not then know of either coal or iron being produced to any extent in that State. Some years since the coal burnt at Indianapolis was called the Terre Haute coal, and was brought from near the State line, west of Terre Haute. At Cannelton a stratum of cannel coal was found in a high bank seventy feet above the river, and in the southwest of the State there is a considerable surface underlaid with this strata of coal, scarcely any of it of workable thickness. As to iron, we had never heard of it, and the article on "Indiana" in the *American Encyclopedia* says not one word about iron. It was with surprise, therefore, we heard from indubitable testimony, that there was in Indiana, within easy reach of Cincinnati, extensive beds of the very best iron ore, and in the same vicinity, coal beds, at a few feet below the ground, of sufficient quality and thickness to supply all the wants of a manufacturing district. This iron is found on the eastern edge of Greene County, and not very far west of Bloomington. This iron mine is found in a region which the geologists seem not to have explored. It is quite singular that Dr. Owen, in his *Geology*, makes no mention of it; and, in fact, makes no mention of iron in Indiana, except at the Falls of Eel river. The mines in Greene County have, however, been visited by iron miners who well knew what they were about, and there is, therefore, no mistake in the matter. Some miners from Youngstown, Ohio, where they are thoroughly acquainted with iron and coal, have visited this locality and pronounce the iron of Greene County the best in the world. This is strong language, but they give reasons for it. They say it is the "Hematite iron," which is the best variety, and that it here exists in the best form and abundant quantity. A gentleman from Iron-ton has also visited this ore bed, who says that his father was a miner and in this region thirty years before, and gave the same account of the ore which is given now. He says there was then a furnace in this region, which was finally deserted on account of difficulty and expense of getting the iron to market; for, it will be remembered, there was then no railroads in Indiana whatever. We may here remark, that in a recent *Gazette's* account of Greene County (Indiana), it is said that lead, coal and iron are abundant. Our informant says nothing about the lead, but gives a full account of the coal and iron. The former is abundant for manufacturing purposes, but the latter (iron) is the great matter of interest. We have seen a map of the region, showing also that many sections of this land have already been leased for mining and manufacturing purposes. But the point now of im-

portance is to see whether and how this region can be reached from Cincinnati by railroad. On this point we wish to make some remarks: We are told that companies would be formed, and immediately, to go to work on these mines, if they could get railroad facilities to Cincinnati. We asked if there were no railroads in this vicinity? Yes, it was said, through Indianapolis, on the west side of White river, and passing over two or three local roads, charging on each, local freight. The nearest road is fifteen miles to the west, and on that route would be more likely to go to Chicago than to Cincinnati. What the inhabitants of that region want to do is to come to Cincinnati direct. How can that be accomplished? It seems to us very easily. The Indianapolis and Cincinnati Railroad passes through Greensburg, and from that point a road passing through Columbus and Bloomington into Greene County would be only seventy miles long. We are informed that the grading on the entire line will be done by the people and counties on the route. If this be the case, and these mines are as good as represented, then it seems plain that both the mines and the railroad will be profitable, and that there ought to be readily found capital enough to put the iron and machinery on. In this matter three classes of persons are deeply interested. These are the people on the route, the proprietors of the Indianapolis road, and the iron manufacturers of Cincinnati. Supposing the first to have done their part in grading the road, it seems to us that the railroad and the iron men might easily and profitably do what remains, especially—as if they don't—another road of less length will make Chicago a market for the products of this region, and carry the legitimate business of Cincinnati from under its very nose. We are told that now the four or five counties which lie on and around these mines, actually trade with Louisville and New York. This, they say, is done because the local freights to Cincinnati are so high. However this may be, we observe here two things: first, that iron ore of the kind here described actually exists there; and, that a railroad will be made wherever it is clearly profitable. These being granted we shall show that it will be a profitable road.

1. There are four counties, Monroe, Greene, Brown and Owen, which trade little or none with Cincinnati, but which would at once trade there altogether. Then the road would immediately develop the iron region, so that the population and the products would soon be doubled.

The surface, population and grain products of these counties in 1860 were as follows, viz.:

	Surface sq. ml's.	Pop'n.	Grain bu.
Monroe.....	432	12,847	850,000
Greene.....	534	16,041	1,124,000
Brown.....	320	6,507	310,000
Owen.....	449	14,376	1,264,000
Total.....	1,735	49,771	3,548,000

There are 50,000 people already producing three and a half millions of bushels of grain, a surplus of full a million of bushels over the wants of both men and animals. At a ratio of sixty to a square mile, less than that of Ohio, this population would be doubled and the surplus product quadrupled, even if the mines we speak of were not developed. But with them, it seems to us, there is ample room for a very profitable local road. Some of the most profitable railroads in this country are those which are entirely local, but which command the trade of their section. In Cincinnati there is another consideration. No place in the United States has advantages superior to Cincinnati for the secondary iron manufactories. To those interested in this business it must be of immense advantage to have such a resource as the iron mines of Greene County will afford. Suppose they do not avail themselves of it, then there are other things will take place. To some extent, though probably not to the same measure that Cincinnati could, Chicago will avail herself of them. Then there are on the branches of White river sufficient water power to erect factories there, which sooner or later will be done. We have touched on the subject here, because, if the facts we have given are correct, then the question is not whether this mineral region will be developed? But who is to do it? These interests of Cincinnati which are here mentioned can do it, and if they do not, some parties in other quarters will. It is in every aspect an interesting question, and we see in the resources of this section of Indiana, just laid open before us, another evidence of those boundless riches which the hand of God has so profusely spread over our country.

Kentucky River Improvement.

The State of Kentucky is really behind all her neighbors in internal improvements. With resources, both agricultural and mineral, unsurpassed by those of any State in the Union, less has been accomplished for their development. We are glad, however, to see that her citizens are waking up to the necessity of intercourse with the rest of the world. It can not fail to place the noble State of HENRY CLAY side by side with the foremost of her sister States in wealth, resources and intelligence.

At a meeting of the Louisville Board of Trade, M. BROWN, Esq., made the following remarks on the importance of improving the Kentucky River:

Mr. Brown remarked that he presented himself before the meeting as the representative of the Kentucky River Navigation Company. The great work this company had in view was the improvement of the Kentucky river to the Three Forks, thereby developin

vast agricultural and mineral resources of the State.

He stated that the State had commenced many years since this improvement, and at the expense of \$900,000 had completed five locks, but the great financial crisis of 1837 had compelled the abandonment of operations, and the work had not since been resumed.

In 1865 a charter had been granted and the Kentucky Navigation Company organized. The State proposes, when this company shall have completed two new locks, to transfer to it all the improvements made under its direction and paid for by State funds, for the nominal rental of \$2,500 per year. The company propose not only to build two locks, but nine additional ones, which will make the stream navigable to the Three Forks, and will cost about \$700,000.

He had come to ask Louisville for aid in carrying forward and completing this great work, but he did not ask it as a donation. The company is a joint stock company, and for every dollar subscribed, stock will be issued, which, he believed, would pay satisfactory dividends. When the work was part completed, with fine boats navigating the stream, it paid 10 per cent, and when the whole line is open a large business must inevitably be created, which would make the stock valuable. Louisville has a direct interest in this work, and aside from the pride we all feel in developing the great wealth of the State, of penetrating to the mountain counties, and unlocking their vast mineral treasures, if the improvements are made, the trade of Louisville must necessarily be indefinitely augmented, not only on their vast stores of iron and immense quantities of wheat, rye, corn and hemp, seeking market from the fertile counties bordering on the river, and which would naturally come to Louisville to be exchanged for her wares and merchandise, but there are inexhaustible fields of coal which will be reached, and which could be brought to Louisville at an immense saving, compared with the cost of Pittsburgh coal. If Louisville consumes annually 8,000,000 bushels of coal, the saving of one cent per bushel amounts to \$80,000; if two cents, the saving is \$160,000. It is estimated that coal can be brought down the river and landed here at nine cents per bushel. If this estimate is correct—and there is good authority for it—then the saving, compared with present prices for Pittsburgh coal, would be not less than \$240,000 per year. If Louisville is to become a great and wealthy and influential metropolis, she must turn her attention to manufacturing. In that case cheap fuel is indispensable, and this enterprise secures it beyond a doubt. In addition to the coal the improvements render the river navigable to a point where it reaches the celebrated Red river iron, known to be the best in the country; so superior, indeed, that it is used for the manufacture of car wheels, requiring the very best iron to be obtained.

In the county of Estill, where this ore is obtained, two furnaces are in operation, another will soon be completed, and there would be a necessity and employment of forty more when this great work is completed. Nor is this all. The country bordering on the river abounds in forests of yellow pine, yellow poplar, black walnut and oak timber, which is now wanted in the markets of the country and which commands highly remunerative prices. Mr. Brown discussed the feasibility of the enterprise and showed very conclusively that the work can be done for \$700,000. The

resources are flatteringly abundant and he believed could be commanded.

Of the eighteen counties bordering on the river or closely adjacent, Jessamine had subscribed \$100,000, Garrard \$100,000, Fayette \$100,000, Mercer \$75,000, Madison \$50,000, Clark \$50,000, Estill \$50,000, and Owsley \$25,000—in all \$550,000. He asked Louisville for \$150,000, which, if subscribed, gives the necessary amount, \$700,000. The gain to Louisville by the completion of this work could not fail of being immense. The vast resources of the country watered by the Kentucky river, and which would be immeasurably increased by the improvements contemplated, could be made to flow directly to her doors. This would be the natural course of trade, and in return Louisville would secure a market for her manufactures and merchandise which would be ever increasing in importance.

The Board adopted the following resolution:

"Resolved, That we heartily commend the enterprise to the citizens of Louisville, and respectfully recommend that the City Council vote the small amount of stock asked for by the President of the Company, to insure the progress of the work and its early completion without a dollar of debt."

The Selma, Rome and Dalton Railroad is to be completed to Rome this week, thus securing, by means of the short road from Rome to Kingston, a connection with the Western and Atlantic Railroad, and a through route to the North via Chattanooga. When Cincinnati shall be fortunate enough, if it should ever happen, to have a direct connection with the Southern system of railroads, by the extension of the Kentucky Central, the Selma, Rome and Dalton Railroad will be a most important avenue for her commerce, running as it does through the richest portion of Alabama; we congratulate our city that it is under the control and direction of one of our most enterprising citizens, who will not fail to carry with him in the "Sunny South" a favorable impression of the "Queen City."

IMPROVEMENT IN CAR COUPLINGS.—A model of Thomas H. Bomar's car coupling was brought into our office this morning for inspection. The invention consists in the construction and general arrangement of a car coupling, which is claimed to be different from any other now in use, that it combines lightness and simplicity as well as strength, and is not liable to get out of order. The advantages of the same are that it is self-acting, so that cars can be coupled from the engine without the supervision of a coupling-hand; that it does away with the danger heretofore attending the coupling of cars and saves time in the making up of trains and shifting cars. A brakeman on top of the cars can cut them loose at any time, in case of fire or other accident, even while running. It can also be used with common couplings, besides many other advantages which will readily be seen.

Major Bomar, the patentee, is a native of and still lives in Atlanta. We have not the least doubt that his invention will supercede all others, and at a very early day be used upon every railroad in the country.—*Atlanta (Ga.) Constitution.*

Progress of the Hoosac Tunnel.

At a recent meeting of the Polytechnic Association of the American Institute, the following interesting paper on the progress of the Hoosac Tunnel was read by its author, Dr. D. D. Parmelee: When completed the Hoosac Tunnel will extend about five miles in a direct line through and nearly at the base of the mountain. The highest point of earth above the grade of the road passing through it will be 1,768 feet. The work is divided into two sections, one commencing at the east side of the mountain, and the other at the west side. At the present time a little more than a mile is completed of the east end, and very nearly a mile of the west end; about three miles are therefore yet to be drilled, blasted and carried out at the ends of the tunnel, to join the two sections and complete the work.

* * The drilling is accomplished by compressed-air engines brought in through tubes leading from air-pumps, which are worked by water power obtained by damming the Deerfield river. The work is progressing somewhat faster here than at the west end, as the rock is not so hard, and much more easily removed. The west section is two miles from North Adams, Mass. The entrance commences in earth; the sides and arch are of brick, which are manufactured close by from clay a few rods distant.

About 1,000 feet from the main entrance, within the tunnel, drilling and blasting with powder is now going on day and night; and here, when the hammering ceases for a moment, the thumping of the drills of the workmen engaged in the section further in the mountain, entered by shafts, may be distinctly heard through 275 feet of rock. Returning to the entrance and up to the mountain, Well No. 4 is reached; this is a shaft 211 feet deep. The drillers whose hammers are heard through the rock are 200 feet from the bottom of this shaft, toward the main entrance. The drilling is here performed in the ordinary manner by man-power, and the blasting is by powder. Ascending further up the mountain, we next come to the "Supplementary Shaft," which is 280 feet deep, and the bottom of which is 900 feet from Well No. 4, measuring on the grade of the bottom of the tunnel. Walking further up the mountain, we arrive at what is called the "West Shaft." This is 318 feet deep, and the bottom is 300 feet from the supplementary shaft. Here are the elevators by which the men and all things employed below descend and ascend. Here, too, are the machine works, steam engines, air-pumps, store houses, etc. * * * From the bottom of this shaft, you walk 1,500 feet east, and come to the drillers who are managing two engines, mounted on heavy frames, and worked by compressed air. These have three drills each.

The compressed air is forced through large pipe, coupled together, leading from the air pumps down the shaft, and thence along to the engines; section after section being added as the work progresses. The rock here is very hard, and composed chiefly of quartz, considerable portions of which are translucent. Considerable water trickles through the crevices in the sides of the tunnel, and at one place a fountain of cold water jets out with much force. The water is now lifted by steam power at Well No. 4. The quantity is 1,000 gallons each minute. When the 275 feet of rock now forming a partition between the two sections are removed, this pumping will not be required, for the water will then flow off

at the main entrance. For compressing air to work the drilling engines, there are four pumps; each having a cylinder 13 inches diameter, and 24 inch length, internal measurement. The number of strokes of each per minute, is 80. The cylinders and air are cooled by an ingenious mode of injecting cold water into them.

The occasion of my entering the tunnel was for the purpose of observing the mode adopted there for blasting by nitro-glycerine, which performance takes place every eight hours night and day. I therefore accompanied Mr. Charles A. Brown, who has charge of everything pertaining to this department, down the shaft. On the platform at our feet as we descended was a basket containing a number of tin tubes; with corks in each, holding altogether 20 lbs of nitro glycerine. * * * The two engines were rolled back, over the iron rails laid for this purpose, several hundred feet and a heavy shield of plank spiked and bolted together placed in front of them for the purpose of protecting them, and also the electrician. While this was going on Mr. Brown was taking the tubes of nitro-glycerine from his basket, one at a time, withdrawing the cork, and inserting another, in which a fuse, made after the plan of Mr. Ables, was adjusted so as to immerse it in the explosive liquid. Attached to these fuses are two copper wires a few feet long, insulated with gutta-percha. The tubes are next inserted in the holes and pushed with a wood cane to the bottom, the insulated wires projecting a few inches out of the hole. Coarse, damp sand was next crowded down, and somewhat packed until the holes were full. The two wires of all the fuses were alternately connected to one of the two large insulated wires, which are attached to the sides of the tunnel, and extend about 600 feet from where the blast takes place. The wire at the left was also attached to the other prime wire. All that was now needed was the electric spark to pass through the wires to explode all the cans simultaneously.

We then passed down the tunnel, leaving the apparatus in darkness, to the ends of the prime wire a few feet behind the machines and shields just referred to. Here the two wires were connected to a small electrical machine. After about six turns of the crank of the machine, the accumulated electricity was discharged, and the 17 lbs. of nitro-glycerine exploded at once. * * * I was told that the force of air issuing from the top of the shaft is sufficient, on these occasions, to lift the hats of those near it, and that the vibrations are distinctly felt at the surface, through the nearly 600 feet of rock and earth above the blast.

The use of nitro-glycerine is hastening the work forward. One of the foremen of the shaft informed me that with this material one hole accomplished the removal of as much rock as three holes charged with gunpowder, and in "stopping out bench work" one hole with nitro-glycerine is equal to eight charged with gunpowder, in execution of work.

The nitro-glycerine is made at the laboratory constructed for the purpose near the shaft, under the direction of Mr. George M. Mowbray, who has recently made some valuable improvements in its manufacture. They frequently make here 150 lbs. daily. On entering the converting department of these works the first object that attracts the attention is a long trough, resembling a manger for feeding horses, about three feet above the floor, and fifty feet in whole extension, filled with ice and a little salt.

In this, about two feet apart, are earthen jars holding a gallon each, their tops projecting two or three inches above the ice. In these jars is the nitric and sulphuric acids. Immediately over the jars, two feet above, resting in a wood rack, are inverted cans, holding about one quart of glycerine. This drops into the acid below, where the reaction takes place, and nitro-glycerine is formed, which falls to the bottom of the jar. Mr. Mowbray agitates his acids with cold air. For this purpose he leads the cold air resulting from the partial expansion of compressed air into the laboratory through iron pipes, and over each jar of acid is a cock to which a rubber tube is attached. On the end of this is a glass tube. During the reaction in the jars, and while dense volumes of nitrous acid are evolved, and the heat which it is necessary to constantly keep down is raising, his men stir the mixture with these glass tubes, admitting a current of cold air which agitates, cools, and in escaping carries off the gas it is so essential to get rid of, as soon as possible after it is formed.

The next part of the process is the removal of these jars, and the emptying of their contents through a trap or square opening in the center of the floor, into a reservoir holding about forty gallons of water, for the purpose of washing off all traces of acid. After washing the nitro-glycerine, the reservoir, which is balanced on two journals, is turned over on its side gradually, and the nitro-glycerine emptied into glass and earthen receptacles. These are removed to the magazine, a few rods distant. At the time I entered this magazine, there were one thousand pounds of nitro glycerine there in jars, holding from three to five gallons each, resting on benches.

Mr. Mowbray prepares his own nitric acid near by, and also concentrates the sulphuric acid he employs. It is probably by close attention to the qualities of the materials he employs, and the thorough agitation and carrying off of the nitrous acid gas, by the cold air introduced into the jars for this purpose, and also to prevent elevation of temperature, that he succeeds in obtaining the quantity and quality of nitro-glycerine he does. Forty-two pounds of glycerine yield him ninety-four pounds of nitro-glycerine, which at a temperature of 48 degrees and upwards, is perfectly transparent and without color. A little below this temperature it becomes frozen, and then resembles pounded ice.

The men who are obliged to breathe the smoke resulting from the explosion of the nitro-glycerine in the tunnel, informed me that they experienced very little inconvenience from it, while formerly, when they used the imported article, which was more or less yellow and brown, they were affected with intense headache.

One physical difference, which will be appreciated by chemists, between that imported and Mr. Mowbray's, is, that a 12 inch column of fluid nitro-glycerine, imported, will expand in freezing three-fourths of an inch in height, while that of Mr. Mowbray's shrinks half an inch. This is supposed to occur from the presence of nitrous gas in the one and an absence of it in the other.

Mr. Mowbray and the electrician, Mr. Brown, informed me that they had made experiments with frozen nitro-glycerine; among which a tin tube was nearly filled with the liquid, then frozen. Gut-cotton in one case was placed over it; in another, fulminate; in another gunpowder. To these were attached electric fuses, the tubes placed between heavy blocks of ice, and fired. The result was to drive

the frozen nitro-glycerine out of the tube into the ice, in the form of a candle, no explosion of the nitro-glycerine taking place. Mr. Mowbray, from this and other experiments, concludes that this agent may be transported quite safely in the frozen state.

Transportation Between the Seaboard and the West.

The extension of the means of transportation between the West and the Atlantic seaboard is the supreme commercial necessity of the times. Beyond the Alleghenies lies the finest trace of agricultural and mineral country on the face of the globe, occupied by a people unsurpassed for practical intelligence, industry and enterprise. Every year, the population of this section is fast increasing its numbers and enlarging its products; and this rapid expansion of Western industry demands a corresponding increase in the facilities for commercial intercourse with other sections and other countries. At present, New York is the grand depot for marketing the surplus products of the West; and thus far our railroads and canals have proved an adequate means of outlet for them. It is not to be imagined, however, that a region with such immense resources is to be always, nor even much longer, dependent upon one market and one port. Nor is it desirable, for the interests of this city, that such dependence should be unduly prolonged. The prosperity of the West is conducive to the welfare of the whole country; and what benefits the country at large is advantageous especially to this port.

But, be this as it may, New York can control no trade which can not be done through its agency more advantageously than through others; and if new routes should be opened, establishing quicker and cheaper communication between the Atlantic and the great grain section, we must cheapen and quicken ours, or it must inevitably result that a portion of the heavy freight trade of the Western interior would take the new direction. A shorter and cheaper connection between the European markets and the West would, indeed, create its own traffic, in addition to that already existing. Whatever reduction is effected in the cost of transporting grain is so much gained in our ability to compete with European producers; and cheaper transportation would therefore insure an extended demand for Western food products abroad. Western expansion is now crippled by the cost of carrying commodities immense distances at high prices. Remove this obstacle, and we should witness an extension of agriculture unprecedented in that rapidly developing section. The growth of the West constantly keeps ahead of the progress of the railroads; and the result is that the transportation companies control absolutely the rates of freight and, by their high charges and frequently inadequate accommodation, act as a restriction upon the sources whence their traffic is derived. Each railroad having as much freight as it can carry, there is no motive for competition between the several companies, but rather for collusion to secure the highest possible rates; which is clearly a condition of things unfavorable to the commercial interests of the country at large.

Upon the foregoing considerations, we welcome any feasible effort to introduce competition in transportation between the East and West, and especially when the new route promises to effect a saving in time and distance. The convention held last week at

Norfolk, Virginia, made a gratifying show of strength in favor of a railroad enterprise by which it is proposed to connect that port with the valley of the Ohio and the vast and fertile lands of the Mississippi Valley. Judging from the earnestness shown at that gathering of Western capitalists, it may be regarded as a settled matter that a connection will soon be established between the Virginia and Tennessee Railroad and Louisville. The supplying of such a link would connect the ports of Virginia with the most thriving sections of the West, North-west and South-west by a shorter route than now connects them with New York. The distance, by the proposed route, from Louisville to Norfolk would be 714 miles, or 351 miles less than from Louisville to New York; from Cairo the distance would be 400 miles less than to New York, and from Cincinnati 237 miles less. There is here a very broad basis for a material saving on the transportation of the heavy freights of the West, the distance of these sections from the Atlantic being reduced about one third. The route, it is also claimed, would have very important advantages over the existing routes in respect to grades, the maximum grade being 68 feet to the mile, while that of the Pennsylvania Central is 100 feet and that of the Baltimore and Ohio 116 feet. Running through a mild climate, the road would be subject to none of the interruptions arising from ice and snow which embarrass the New York and Pennsylvania roads. The West, and Cincinnati especially, needs facilities that will enable it to forward its produce as freely in the winter, when navigation is suspended, as at any other time; while it equally requires the means of sending to market its crops in the fall without glutting both the roads and the canals; and that desideratum would be met by supplying the lacking link between the Virginia roads and those of Kentucky. The road would be available for the transportation of Western produce destined to New York at a season when the existing roads are overcrowded or when the canals are frozen, which would be of great importance to the grain trade of this city.

It is contemplated to establish a line of steamships to run between Norfolk and Liverpool, designed to carry the heavy class of freight brought over the new route, and supplying the facilities for through shipments from the West to Great Britain. Here, perhaps, is the weak point in this scheme for making Norfolk a great port for Western products. For although it is easily conceivable how the vessels may get ample outward cargoes, yet it is by no means apparent where the return cargoes are to come from, seeing that the Atlantic imports are naturally attracted to the New York market. The projectors evidently aim to divert emigration to that point as a basis of return traffic, and propose, as an inducement for emigrants to come by their vessels, to give them free transportation from Norfolk to their destination. The representatives of the connecting railroads promised in the convention to grant this advantage to settlers coming in the Norfolk steamers. They can not, however, make such a gratuity without some considerable cost. If the sacrifice should induce emigrants to sail for Norfolk in preference to New York, there would be some compensation to the roads; for the profits of the steamers upon the emigrant trade would place them in the better position for carrying freight cheap; but if it should fail to attract emigrants, the vessels would have to charge proportionately higher rates of freight, which would make against

the economy of the route to Western forwarders. The great earnestness shown by the West in forwarding this enterprise, as a new outlet for its products and a source of competition with the Eastern routes, warrants the expectation that much will be done by the merchants of that section to establish trade on the route; and, with such aid at the beginning, its natural advantages may be relied upon to secure it ultimately an important position as a line of communication between the grain States and Liverpool.

Contemporaneously with these efforts, steps are being taken for connecting the Chesapeake Bay with the West by an unbroken line of navigation. The shortest natural water line between the Atlantic and the West undoubtedly lies between the mouth of the James River and the commencement of the Ohio. This route it is proposed to open by completing the unfinished portion of the Virginia canal, over the 80 miles between its present terminus at Buchanan and the Greenbrier river: which would connect steam navigation at Richmond with steam navigation in the Kanawha, by a canal 277 miles in length. In this way a connection would be opened between the Chesapeake Bay and the river system of the West, with its immense flat-boat traffic, a system which admits of unlimited ramification by the building of canals connecting the great water lines.

These movements for opening, at the same time, railroad and water communication between the West and the Chesapeake Bay indicate a public sense of the pressing necessity for ampler transportation accommodation for the rapidly expanding interests of the interior; and, considering the comparatively light outlay of capital required for the completion of the enterprises, there can be no doubt of their ultimate realization, and as little question that a new era of commercial development will be the result.—*Fin. Chronicle.*

Erie and Rock Island Railways.

The *Tribune*, of the 26th, in its money, severely criticises the management of the above roads for their stock operations:

"The shares of the Erie Railway Company have again become the center of interest on the street, on reports of further issues of stock, which are undoubtedly being made, and the amount to be issued stated from \$8,000,000 to \$20,000,000. Last March the directors of Erie sold, without notice, \$10,000,000 of stock for construction, and the Rock Island followed the same bad example, selling \$5,000,000 of stock, averaging 15½, thus confessing that the property was not worth par in the estimation of its managers. It is now stated that the directors of the Erie Railway have made contracts for from \$12,000,000 to \$15,000,000 of new construction and iron, and that already 90,000 shares of stock have been sold and delivered at the present low prices, and that still further amounts will be sold to raise money to develop the road. The road is now having a third rail laid to permit the passage of narrow gauged cars. This rail will cost from \$3,000,000 to \$4,000,000 alone. The Rock Island road, it is said, is arranging to capitalize its loan of the Peoria road, and will make \$1,500,000 new stock for that purpose, and throw it upon the market. In view of the continued manufacture of stock by these corporations, and that there is no register kept whereby a stockholder can tell how much

stock there is, it would be well for money-lenders if the boards should insist that no stock should be loaned upon or dealt in at the Stock Exchange that did not have a register kept at one of the trust companies, that could be examined at any time by the stockholders. At present a purchaser of Erie does not know if the common stock is \$30,000,000 or \$65,000,000, and the present managers give good reason to fear that the corporation will be in bankruptcy before long, and the property pass into the hands of the bondholders. These continued surreptitious sales of stock work disastrously to all the railway shares dealt in, the good and bad alike suffering great depression from these underhand issues. After due notice, unless a correct list of their stocks were placed on file at some convenient place of reference, they should be stricken from the list, as should the stocks of all other unregistered corporations, and thus present the constant distrust felt by the holders of railway property."

Heroes of the Pacific Railway.

We find the following deserved tribute to the patriotism and genius of Col. BENTON, in the letter of a Washington correspondent of the *Cincinnati Commercial*:

The Pacific Railway is probably the greatest civil job ever undertaken by any government, always excepting, of course, war. No expedition ever undertaken compares with it in expense or obstacles. Not the building of St. Peters, not the fortifying of Paris, not the diking of Holland. Perhaps the building of St. Petersburg more nearly approaches our enterprise in speed and working numbers.

As a proposition, it involved little originality or daring conception, and, like every great political idea, was accomplished by agitation. Asa Whitney first brought it forward, in 1846, and pounded away at it for four years. Senator Tom Benton was the political godfather of it, and his son-in-law, John C. Fremont, was the path-finder of it. The surveying parties which started out to "locate" its line were respectively commanded by Governor Stevens, Captains Gunnison, Pope and Whipple, and Lieutenants Williamson and Parke, most of whom were afterward brave Generals against the rebellion; and Captain (since General) Humphreys selected that route of the six surveyed over which the inter-oceanic trains will go. He was appointed by Jefferson Davis, Secretary of War, under whose auspices the War Department went solidly into the work. Government has paid enough for this work to have built the road and owned it, but the experience of the past is that States can not run canals and railroads without making them highways of public corruption. All the Commonwealths, nearly, have had to sell their public works.

The Pacific Railway will probably be choked up one-fifth or more of the year. Expert observers state this as their view, and say that the covered galleries or sheds, designed to protect it, will prove inefficient. What influence the road will have upon the fortunes of the splendidly equipped line of Pacific mail steamers, we can only guess. The Hudson River Railway has not run off the Hudson river steamboats, and in any event, the mail company will have the benefit of the ferriage to China, so that railroad and steamship will play into the pockets of each other, and probably, as in common with powerful rival corporations, be finally amalgamated.

It will be just forty years, at the opening of the Pacific Railway, since the first locomotive engine was landed at New York. Less than half that number of years ago, we connected the lakes and the Atlantic by rail.

THE GRAND CONCEIT OF TOM BENTON.

The other day I published somewhere, perhaps in the *Commercial*, some novel anecdotes of Tom Benton, the principal projector of the Pacific Railway, whose statue stands in St. Louis to day, looking westward along the line, aquiline and grim as in life, with his cloak folded around him. From the same source I have obtained other personal reminiscences, one or two of which I send you as pertinent to the theme of this letter.

Shillington is an Irish bookseller here, of credit and renown. Benton was a neighbor and friend of his, and made Shillington cut out of books and newspapers every conceivable article upon the Pacific Railway, and bring it to him. He also employed Shillington to select from the Congressional Globes, which were brought to his house in C street by the cart-load, the matter that he wished in publishing his "Abridgement of the Debates of Congress."

"It was a strange and remarkable study," said Shillington, "to see that old man lying there flat on his back, unable to rise, his spectacles poised on the tip of his nose, looking through the long debates, whose huge folios he held on his breast. He knew that he had but a week or two to live, and he was running a race with death to get the book finished; for he believed that it was the vital thing to keep the country together. He used to send me word four or five times a day to come up there, and the people said that I was his slave. If I did not come promptly on time, the old gentleman seemed to feel that I was in some way derelict in my duty to the country. One day, when the shop was full of people, word came down, 'Mr. Benton wants you to come at 2 o'clock to help him on an important matter.' As soon as I could possibly leave, I went around to his dwelling and found him asleep, breathing very hard, with a large volume of the Globe on his breast. I lifted the book off and set it on a table a little out of reach. Then seeing that he did not yet awaken, I hastened back to my work. In about two hours I returned, and the old man looked very severely at me."

"I sent for you, sir, two hours ago. I have but a month at most to live, sir; and it is important for the country that this book shall be finished before I die. You did not come, sir."

"Yes, Mr. Benton, I did. And I found you asleep."

"I have not slept for fifty hours, sir. It was impossible that I could sleep, sir, with so much on my mind!"

"Benton never trusted a man that told him a lie, so I found it necessary to clear myself."

"Mr. Benton," said I, "you were asleep, with a volume of the Globe on your breast when I entered the room, and I found you breathing hard, so I put the book on the table yonder."

"The old man's eyes lighted up."

"Well, now, sir," he said, "I knew I had that book on my breast, or on the bed somewhere, and I wondered how it got off there so far. Perhaps I did doze a little unconsciously. But come, sir, we must get to work. I have but a little time to do a great deal of work in."

"Dr Hall and his colleague, to prolong the life of Benton, opened the old man's abdomen and taking out his bowels, while he was

still conscious, proceeded to cleanse them. At one place they found some grape-skins; then they found bits of wood, which he used to chew abstractedly while writing or reading."

"Look on, gentlemen," said the old man, feebly; "I dare say you will find Congressional Globes next."

"When Benton was about to die, so vital did he think his advice was to the country, he sent for Buchanan, had the door closed, and solemnly devoted his last hours to impressing upon the President his opinion of the mode in which the country should be administered. If ever there was a man," concluded Shillington, "who thought that in his mind and reason lay the true destiny of the Union, it was Tom Benton. His family, his fame, his future were all subordinate to the love of country."

Exploration of the Canon of Colorado.

An adventurous prospector, James White, having recently passed through the famous canon of the Colorado on a raft, the following conclusions in regard to that river have been formed from his detailed account of his trip, as stated to the St. Louis Academy of Natural Science:

1. The actual location of the mouth of the San Juan, 40 miles below Green River junction, and its entrance by a canon, continues with that of the Colorado river.

2. From the mouth of the San Juan to the Colorado Chiquito, three days' travel in the swiftest portion of the current, allowing a rate of four miles per hour, for fifteen hours, or sixty miles per day, would give an estimated distance of 180 miles, including the most inaccessible portion of the Great Canon.

3. From Colorado Chiquito to Callville, ten days' travel was expended. As this portion of the route was more open, and probably comprised long stretches of still water, it would not be safe to allow a distance of more than thirty miles per day, or three hundred miles for this interval. Thus, the whole distance traveled would amount to five hundred and fifty miles from Grand river junction to head of steamboat navigation at Callville.

4. The absence of any distinct cataract or perpendicular falls would seem to warrant the conclusion that in time of high water, by proper appliances in the way of boats, good, resolute oarsmen, and provisions secured in waterproof bags, the same passage might be safely made, and the actual course of the river with its peculiar geological features properly determined.

5. The construction of bridges by a single span would be rendered difficult of execution on account of the usual flaring shape of the upper summits; possibly, however, points might be found where the high masses come nearer together.

6. The estimated average elevation of the canon at 3,000 feet is less than that given on the authority of Ives and Newberry, but may be nearer the actual truth, as the result of more continuous observation.

7. The width of the river at its narrowest points was estimated at 100 feet, and the line of high water mark thirty to forty feet above the average stage in August.

8. The long continued uniformity of the geological formation, termed "white sandstone" (probably cretaceous), is remarkable, but under this term may have been comprised some of the lower stratified formations. The contrast on reaching the dark igneous rocks

was so marked that it could not fail to be noticed.

9. Any prospect for useful navigation up or down this canon during the season of high water, or transportation of lumber from the upper pine regions of Green or Grand rivers, could not be regarded as feasible, considering the long distance and the inaccessible character of the river margin for the greater part of its course.

10. No other satisfactory method of exploration, except along the coast of the river, could be adopted to determine its actual course and peculiar features, and James White, as the pioneer of this enterprise, will probably retain the honor of being the only man who has traversed, through its whole course, the Great Canon of the Colorado, and lived to recount his observations on this perilous voyage.

The Kansas Excursion Party.

The General Ticket Agents and other railroad men who went buffalo hunting on the Kansas Pacific Railroad, were so delighted with their treatment and the country they saw, that they passed the following resolutions when on their way to Chicago:

"WHEREAS, The "Kansas Excursion," originated by Messrs. W. O. Lewis, General Ticket Agent Pacific Railroad of Missouri; J. M. Webster, General Ticket Agent Union Pacific Railway, E. D.; P. B. Groat, General Ticket Agent Hannibal and St. Joseph Railroad; Samuel Powell, General Ticket Agent Chicago, Burlington and Quincy Railroad; John S. Loomis, President, and C. N. Pratt, General Agent, National Land Company, and the managers of the several railway lines, who liberally provided ample transportation, and successfully carried out by them, through the co-operation and assistance of Mr. Woodward, Assistant Superintendent Pacific Railroad of Missouri; George Noble and B. Marshall, Assistant Superintendents of Union Pacific Railway, E. D.; J. S. Ford, General Ticket Agent of Missouri Valley Railroad; Col. Henry Starring, General Agent of Chicago, Burlington and Quincy and Hannibal and St. Joseph Railroads; James A. S. Reed, General Traveling Agent of Hannibal and St. Joseph Railroad; Gen. E. R. Wadsworth, General Freight Agent of Chicago, Burlington and Quincy Railroad; Col. A. B. Pullman, General Superintendent of Pullman's Palace Car Company; Mr. James C. Ives, of the Ives House, Sedalia, Missouri, and C. N. Pratt, Agent of Union Pacific Railway; and,

"WHEREAS, The completion of our journey to and from the Western terminus of the Union Pacific Railway, E. D., is rapidly approaching, and will soon dissolve temporarily the association of ladies and gentlemen composing the "Kansas Excursion Party," therefore,

"Resolved, That we part with feelings of sincere regret from those whose many acts of kindness and attention have rendered our journey an endless chain of interest, pleasure and delight.

"Resolved. That it would be invidious to discriminate where all merit and have our heartfelt thanks, and hence we can only say that our grateful appreciation of such hospitable kindness may only be measured by the extent of enjoyment which we have all experienced.

"Resolved, That we earnestly recommend to tourists the "Union Pacific Railway, E.

D.," as one of the most interesting portions of our common country, abounding in varied and magnificent scenery, combining valley, hill and plains, and the famous Indian hunting grounds and endless other attractions. To the hunter, an almost boundless field of exciting pleasure, where countless thousands of buffaloes, antelopes and other animal targets will fully reward a visit. To the farmer and artisan, the advantages which are unsurpassed by any other section of the Western world.

"Resolved, That our appreciation be and is hereby expressed to Major General P. H. Sheridan and staff, for the kind reception extended to us at Fort Hayes, and particularly the characteristic gallantry that prompted especial attention to the comfort and safety of the ladies.

"Resolved, That our practical experience and observations, while in Kansas, will attest the indomitable energy of the officers of the National Land Company in developing for the benefit of the whole country the advantages and illimitable resources of the Territory, controlled and offered by them to capitalists and others seeking to become "Pioneers of the Western Empire."

"Resolved, That from the pleasure and comfort afforded by the Pullman Palace cars, we feel it a duty to recommend all the leading railway lines in the United States to adopt them as the most agreeable, elegant, luxurious and well-appointed mode of travel extant."

The Mortar Secret.

From the *Gazette of the Association of German Railway Administrators*, the *Iron Age* takes the following report concerning the preparation of a very durable mortar, and of the experiments made with it:

"It is well known that the mortar used by the Romans made far more durable masonry than modern mortar. The modern mortar hardens very slowly, tears after hardening, does not become very firm, crumbles easily after a considerable period has elapsed, and does not unite well with the building material, so that after thoroughly hardening, there is but little difficulty in removing single stones from the top layers of masonry. The modern mortar effects less a real union between the stones and bricks of masonry, but rather only lays them closer together, while the weight of the materials themselves far more insures the firm union of the layers of stone and mortar. For a lasting finish common mortar can not be used, because of the above named qualities. Neither can it be used for masonry under water, as it softens in the water, and is washed away. In investigating the mortar of old Roman masonry, it was discovered that the mortar had for the greater part been converted into silicates, which had entered into very close union with the quartz particles. It is well known that with modern mortar the formation of silicates does not take place until after a long time, and then only in a very slight measure. But it is just these silicates which give mortar firmness, and at the same time make it capable of resisting the action of water. It is to the formation of such silicates that cement owes its hardness and imperviousness to water. Lately, Prof. Artus discovered a method of preparing mortar by which the silicious earth is, according to the chemical term, set free and the formation of silicates greatly promoted. The mortar prepared after this

method hardens much more rapidly than common mortar, attains equal hardness with cement, and forms no tears while drying. It may also be accepted that it can be used under water in the place of cement. Still, until now, only experiments, in which the Artus mortar has proved its excellence as air mortar, have been reported to us, while of its utility in the place of cement under water no confirmatory experiments have as yet been made known to us.

"The method employed by Dr. Artus is extremely simple. Take well slacked lime, and mix carefully with it finely sifted sand; when this has been done let their yet be added one-quarter as much fine unslacked lime as there has been sand used, and mix thoroughly. While it is being mixed the mass heats and the mortar may then be immediately used. Of course the unslacked lime must not be added to the mass until it is wanted for use. During the heating of the mass silicates form through which it quickly stiffens and becomes very hard in a short time. This mortar forms no tears. It resists all action of the water, and can therefore be used whenever durability is an object. This mortar clings so firmly that after a short time even considerable force has to be used to separate it from the building material. Experiments made with it have yielded brilliant results, so that the writer may believe to have solved the former so-called mortar secret. This is what Dr. Artus writes in his quarterly periodical. An experiment known to us yielded the following result: One part of well slacked lime was carefully mixed with three parts of fine sand, and just before using, three-fourths part of fine unslacked lime was added, and the whole then thoroughly mixed. The mortar thus prepared was used in building a foundation wall, and after four days became so hard that a pointed iron could not be driven into it; it clung with equal tenaciousness to the stones of the wall. After two months the mortar was just as hard as stone. We have then, here, a very valuable discovery under consideration, which must also be of great account from an economical point of view, when the high price of cement is remembered. It should be more definitely proved how long the mortar can be used after preparing, and how large quantities may be used at once. In following up the trace thus discovered, by means of rational experiments, and by making use of the scientific discoveries made in this line, it would perhaps be possible to substitute a cheap, simple mortar for the expensive cement. In the interest of science, and no less of practical application, a more definite explanation of the chemical process which takes place during the preparation of this new mortar, would be very desirable."

The Manufacture of Artificial Stone.

Mr. Ransome's process for making artificial stone by chemical means is proved to be a great success, the stone standing every destructive test which human ingenuity can devise. It is found to be cheap and durable, can be moulded into every form of beauty, desirable in ornamental architecture, or used in engineering works where strength, solidity and permanence are demanded. At the risk of recapitulating some of the features of this invention already presented in the *Railway Times*, we give a resume of the points presented by the different English engineering journals of the method of manufacture: Mr. Ransome's patent concrete stone consists of

sand united, not by any mechanical sticking compound, but by chemicals which transform it into a new and homogeneous mass. It is particles of sand, in some cases mixed with a little limestone, united by silicate of lime. The manner of forming this silicate of lime in the mass is, in fact, the essence of invention. The sand is mixed with a viscid solution of silicate of soda, which produces a pasty mass, readily moulded. When the required forms are produced they are treated with a solution of chloride of calcium, when the silicic acid and the oxygen of the silicate of soda combine with the calcium of the chloride of calcium, and form silicate of lime, while the chlorine of the chloride of calcium unites with the sodium and forms chloride of sodium (common salt), which is afterward washed out. But Mr. Ransome had no sooner discovered how to provide for chemical reactions than the commercial problem of cost of materials assumed very serious proportions. Silicate of soda, the chemical upon which the process hinges, was indeed produced by two modes, both of them, however, expensive, and neither of them adequate in degree. The solution was too weak to answer his purpose. The scientific importance and the practical difficulty of the improvement, therefore, lay—just as they did in the Bessemer and other processes—not in making the desired material, but in making a material with which to make it. Mr. Ransome's great invention was the production of silicate of soda under pressure. While powdered flint-stone, boiled in a solution of caustic soda, at the atmospheric pressure for many hours, would yield but a weak and inadequate fluid, whole flints so boiled, under a pressure of sixty pounds, readily dissolved and formed a strong silicate of soda.

The first process is drying the sand by letting it slide down through an inclined revolving cylinder, warmed by a blast of heated air. The sand is then sorted in bins, according to its fineness. The silicate of soda is prepared in a boiler resembling a cylindrical steam boiler. The flints are laid on a grating in the boiler, the caustic soda fills the boiler, and the heating is done by steam pipes introduced into it from a steam boiler. The solution thus obtained is further strengthened by evaporation in a tank furnished with steam heating pipes. The mixing of the dry sand and the sticky, liquid silicate of soda, is done by a kneading mill consisting of iron wheels, with projections, rolling in a trough. From two and one-fourth to three bushels of the sand, or sand and limestone, are thoroughly mixed with one gallon of the solution (which has a density of 1.7,) and the pasty mass thus formed has just enough cohesion to enable it to be moulded. The moulding consists simply of forcing the paste, a little at a time, solidly into moulds, which are then removed, leaving the perfectly shaped but fragile figure. The moulds that are repeatedly used are made of iron.

The next process is to change the moulded mass, now weaker than plaster, and hardly stronger than putty, into stone; and this rapid and all important process exhibits a mechanical expedient not more remarkable than the chemical reaction. It had long been the custom to pour the petrifying liquid (chloride of calcium) over the figure, or when the latter was of suitable shape to be lifted, to immerse it in the liquid—the complete penetration in either case requiring a long time. The ingenious method now practiced is to connect a cavity left in the moulded figure with an air pump, which, by exhausting the pores in the

mass from within, allows the solution poured upon the exterior surfaces to be rapidly forced in and throughout the mass. In a few moments the stone is hardened, or rather created so that it can be handled with impunity. But to thoroughly expel the air, and to perfect the chemical action, the stone is further boiled in the solution of chloride of calcium (lime water) by means of tanks and steam pipes. These tanks are arranged in a row on one side of a railway, and on the other side there is a series of shower baths, by which the chloride of sodium formed in the stone is washed out. Drying now completes the process, and this is effected in the open air in summer, and in warm rooms in the winter. The sharpness of outline and the beauty of the finish are all that could be desired. In this regard it differs radically from sanded wood, stucco and painted iron, which, when intended to imitate stone, invariably look cheap. The concrete stone, however, is not an imitation. Its color is also excellent, and may be considerably varied.

Great Britain—Agricultural Statistics, 1868.

The following figures are officially published, including the chief of the agricultural statistics collected this year, in advance of the fuller returns which will hereafter appear:

	EXTENT OF LAND IN GREAT BRITAIN UNDER		
	Wheat. Acres.	Barley. Acres.	Oats. Acres.
1866.....	3,350,394	2,237,329	2,759,923
1867.....	3,367,876	2,259,164	2,750,487
1868.....	3,646,260	2,149,201	2,753,240

INCREASE [*] OR DECREASE [†].

	Wheat. Acres.	Barley. Acres.	Oats. Acres.
'68 over '67...	*273,384	†109,963	*2,753
'68 over '66...	*295,866	†88,128	†6,683
	or 8.2 p. ct.	or 4.0 p. ct.	or 0.3 p. ct.

TOTAL NUMBER OF LIVE STOCK IN GREAT BRITAIN ON JUNE 25.

	Cattle.	Sheep.	Pigs.
1867.....	4,993,034	28,919,191	2,966,979
1868.....	5,416,154	30,685,980	2,303,857

INCREASE [*] OR DECREASE [†].

	Cattle.	Sheep.	Pigs.
'68 over '67	*423,120	*1,766,879	†663,122
	or 8.5 p. ct.	or 6.1 p. ct.	or 22.3 p. ct.

The amount of land in Great Britain under potatoes in 1868 was 539,554 acres, against 492,217 in 1867 and 493,843 in 1866. The acreage under hops in 1868 was 64,448, against 64,284 in 1867 and 56,578 in 1866.

Mr. Donnelly, the Irish Registrar General, has made his usual report, from which we learn that the total acreage under all crops in 1868 in Ireland was 5,547,385 acres; ditto, 1867, was 5,459,702 acres—showing an increase in the extent under crops in 1868 of 87,683 acres, which is thus accounted for: compared with 1867, wheat increased by 25,756 acres, oats by 39,408, barley by 15,199, and bere and rye by 304 acres. Beans and peas decreased by 33,072 acres, mangel and beetroot by 270, cabbage by 8,753, and carrots, parsnips and other green crops by 1,102 acres. Meadow and clover increased by 33,

462 acres. The crops which decreased in area in 1868 were turnips, by 15,662 acres, vetches and rape by 3,638 and flax by 46,811 acres—the net increase in the acreage under crops in 1868 being 87,633 acres.

The total estimated value of horses, cattle, sheep and pigs this year was £31,098,742 being a decrease of £2,058,477 compared with 1867.

NEW RAILROAD CAR AXLE.—In locomotive and railroad car axles it commonly happens that while the main body of the axle is sound and unimpaired by usage, the journals are so far worn as to necessitate the replacement of the old axle by a new one, without much or any prospect of utilizing the old one again for the same purpose. This invention has for its object the remedying of this defect, also of making new axles more durable than they now are, and consists, in case of manufacturing a new axle or of repairing an old or worn one, in drawing out or otherwise reducing the ends of the axle made as usual of wrought iron, and then bringing said ends to a welding heat, and casting on or over each of them a steel shell or outer covering by running the molten metal into a mould surrounding the end of the axle to an extent and of a size and shape necessary to form the journal, the steel becoming by a state of fusion incorporated with or welded into or on to the drawn or reduced heated end of the wrought iron axle, after which the union may be more firmly established by hammering, and the journals finished as required. The invention further consists in extending the steel shell thus applied beyond the journal, and so as to embrace a portion of the body of the axle, and to enter or be received within the hub of the wheel, that being driven tight on the axle thus serves to give additional security to the close fit of the shell on the end of the axle, in case there should be any defect in welding it thereon, and holds the same in place against getting or working loose. Geo. H. Hoagland, of Port Jervis, N. Y., is the patentee.—*Artisan*.

Speaking of the Kansas City & Galveston Road, now progressing towards Fort Scott, the Kansas City Commercial Advertiser says: Our interest lies not so much in the completion of this road to Fort Scott and Baxter Springs—for then many merchants who now buy goods in Kansas City will go to Chicago and New York for them—but in extending it as rapidly as possible to Preston, where it will meet the Galveston end. Kansas City will then have a seaport, and Galveston will be to Kansas City what New York City is to Chicago. Then instead of transporting our imports two or three thousand miles, we will bring them from the legitimate port of the great Southwest, and at a distance less than six hundred miles.

USEFUL INVENTION.—We were yesterday shown the model of an invention—the work of our young fellow-citizen, Mr. Orion T. Dozier—which may supercede any thing of its kind yet in use.

It may be termed a centre-changing switch, the chief merit of which consists in the fact that it dispenses entirely with the frog now used on railroads. It is simple as well as ingenious.—*Atlanta (Ga.) Constitution*.

Fremont, Neb., which will soon be reached by the cut off of the Northwest Railway from Missouri Valley, Iowa, hopes to be a great railroad center—a species of Nebraska Indianapolis. One of its citizens predicts that within ten years it will have the following railroads:

First. The Union Pacific Railroad, already constructed.

Second. The Chicago & Northwestern, now in progress of construction.

Third. A road to Lincoln and the Southwest.

Fourth. A road to Sioux City direct, up the Logan Creek valley.

Fifth. A road up the Elkhorn valley, into the Northwest.

To these we may possibly add another road to Nebraska City and the countries below toward St. Louis.

RAILROAD MATTERS.—The railroad fever in this city has been very high for several weeks, and we are now in a very fair way for having the Fort Wayne, Muncie and Cincinnati, and the Fort Wayne, Richmond and Cincinnati Railroads put under contract in a short time. Last night the City Council adopted a resolution as follows:

"Resolved. That whenever the Fort Wayne, Richmond and Cincinnati Railroad Company shall complete the whole line of said railroad, and the cars shall be running thereon, and in connection therewith, from Cincinnati through Richmond into Fort Wayne, the said city will provide, by ordinance, for a subscription by said city to the capital stock of said company of \$100,000, and will issue the bonds therefor, payable to said company in an equal amount and with like interest as the bonds authorized to be issued to the Fort Wayne, Muncie and Cincinnati Railroad Company."—*Commercial.*

Heprath's Railway Journal says: In time all the broad gauge in the country will be turned into narrow, and the conversion can be economically effected by first mixing the gauge and wearing out all the broad gauge engines, carriages, etc., supplying their place from time to time by narrow gauge stock. When the narrow gauge rolling stock thus takes the place of the broad the third rail can be pulled up and the materials used, leaving the narrow gauge. The cost of constructing a broad gauge is considerably more than that of a narrow gauge line, and therefore we should recommend that all new lines be constructed of the narrow gauge, especially as the maintenance and working of the narrow gauge is somewhat cheaper than that of the broad.

Grain Receipts from the railroads leading to Chicago from the West are increasing. The rapid depreciation of prices since the first of September has discouraged shipments, the farmers not readily believing that the prices would continue so low. Now however, they are more ready to accept the situation, and are bringing forward their crops rapidly to secure shipment before navigation closes and the increased cost of transportation to tidewater compels another decline in the West.—*W. R. R. Gaz.*

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We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing

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SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

MITH, Pres't, C.&I.C. Railway, Columbus, O.
H. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indian ap. C.
Aug. 2, 1866.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam; yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same times as an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

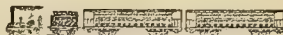
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Rail way on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at the northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD —OF— NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 12:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 light

9:00 a. m.—MORNING EXPRESS for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 4:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:22 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:41 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 6:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

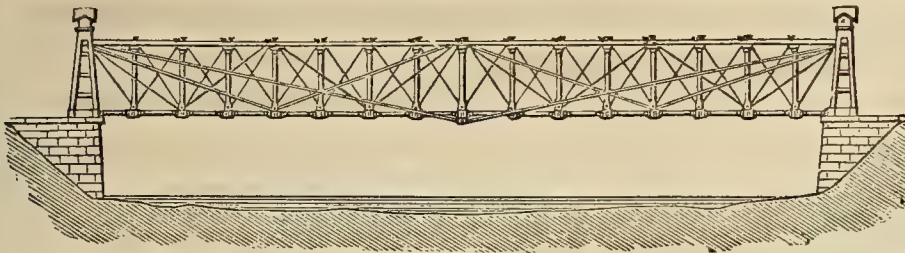
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnett House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS
Philadelphia, Pa.

W. M. F. HEWSON,
Stock Broker,
21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
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The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.

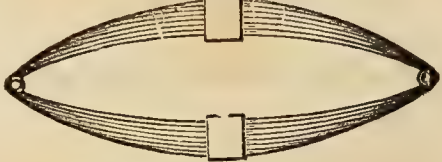
330 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double flange with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner, on the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI, 7 40 a.m.	10 10 p.m.	4 00 p.m.	
Arrive SEYMOUR, 12 00 m.	2 00 a.m.	8 10 "	
Leave " 12 20 p.m.	2 10 "		
Arrive VINCENNES, 5 15 "	6 35 "		
Leave " 5 20 "	6 40 "		
Arrive ODIN, 9 35 "	10 30 "		
Leave " 9 45 "	10 40 "	6 30 a.m.	
" SANDOVAL, 9 55 "	10 50 "	6 40 "	
Arrive ST. LOUIS, 1 00 a.m.	1 30 p.m.	9 40 "	
Trains Arr. at Cinc'ti, 6 10 a.m.	11 30 p.m.	12 00 m.	

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted.) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.26 am
Cairo and St. Louis Express.....	2.20 pm	4.08 am
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.
Lawrenceburg Accommodation.....10.00 am 8.35 am
Connersville and Cambridge City.....4.00 pm 9.15 am
Lawrenceburg.....4.45 pm 2.20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER.



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engines and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

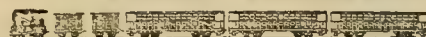
Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at 11.00 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, }
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, NOVEMBER 5, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
Onesquare, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " " per month..... 10 00
" " " six months..... 40 00
" " " per annum..... 80 00
" " page, single insertion..... 75 00
" " " per month..... 25 00
" " " six months..... 110 00
" " " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Cincinnati Interests.

Our Railroads—Their Unprofitable Condition—How to Improve It.

Without attempting to particularize, we assert, without fear of contradiction, that no railroad running to Cincinnati has this year done a profitable traffic; hence there will be no dividends made to stockholders. This is to be regretted, as a matter of course, not only as a serious inconvenience to those who depend upon their invested means for market money, but as partially indicating the character and result of general business in the city, and, in a measure, of the whole country. While we do not propose, at this time, to discuss the causes that have affected the general interests of the country, we will endeavor to indicate some of those that seriously affect our local interests and traffic.

In some recent articles in the RECORD we have shown the growth of the city since 1830, and the causes that influenced it and conferred on Cincinnati the proud title of the "Queen City." The population we stated to be in—

1830.....	24,831
1840.....	46,338
1850.....	115,436
1860.....	161,044
1868.....	220,000

Indicating, it is true, a progress in population, but by a decreasing ratio. Now, this might be regarded by the unobserving as the natural result of the increased density of population, in the territory around the city and tributary to it, and the opening up of the immense territories to the west of us, affording new fields to the enterprising and energetic. This sophism, however, we showed to be untrue by the more rapid growth of other neighboring cities. In our issue of the 22d inst. we stated the growth of Cincinnati to be for the past eighteen years, from 1850 to 1868, at 95 per cent., while that of Chicago for the same period was 500 per cent., Toledo 400 per cent., Cleveland 300 per cent., St. Louis 150 per cent., and of Louisville 120 per cent. Hence, it is other causes than density of population that has produced this result, and if we carefully investigate them, we will find they are necessarily local in their character and fully under the control of a live, active, intelligent community.

In the first place no progress has been made in extending the area tributary to the traffic of the city for the past fifteen years, it has been rather curtailed than otherwise by the facilities afforded to trade at other points, and whatever of increased traffic we may have obtained has been from the increased density of population in our immediate neighborhood, rather than the extension of territory. That we have made progress we have admitted, and in beautifying our city

with magnificent stores and elegant residences, Cincinnati has perhaps surpassed during the above period all other cities of the West. It is in this that our energies have been expended, with no thought for the future. Individual aggrandizement has been the rule, and not the general good.

What, then, must be done? Why, it must be palpable to the dullest mind that unless we at least keep pace with our neighbors in securing the means of traffic and affording trade those facilities that are equal to other marts, goods must moulder on our shelves and the busy hum of our workshops be transferred to other more intelligent and more energetic communities.

We have before pointed out the proper direction that those enterprises should take. First in importance we deem the

DIRECT CONNECTION WITH THE SOUTH.

That this project will not construct itself, neither can we expect others to come here to do it for us, exclusively for our benefit, we deem to be equally plain propositions. The truth is, we will have to do as the farmer told his son about the harvesting, after sending one day for the neighbors and the next after his kin folks, neither of whom came to do his work for him, "to get ready the sickles and you and I, will, to-morrow, cut our grain." When Cincinnati comes to this conclusion, there is a probability that the road will be built and not before. It should be no "one-horse affair," but got up on a grand scale and made a first-class route for traffic, and extend from Cincinnati to a definite point, or points, so as to command, without the intervention of little terminal tracks, at either end, the entire traffic of the Southern States. That this view may involve a larger expenditure than has sometimes been talked of, may be true; but nothing short of a grand *through route* to the South will tend to restore the prestige of our city in the Southern markets. A trunk line through to Chattanooga, with arms resting at Nashville on the west, and Knoxville on the east, would alone place us on a par with other competitors for this traffic.

CAN CINCINNATI DO IT?

Of course she can. For if she does not, she may as well "hang up the fiddle and the bow," tear down her stone fronts, and sell the debris to some other town that will have more need for them; for her *live men* will move away.

We take it for granted that the *bridge across the river will be built*; the roads already in interest will attend to this. That we will also eventually secure a connection with the Chesapeake and Ohio road, making the route through Cincinnati to the seaboard from the West the shortest, best and cheapest that can be found between the lakes and the Gulf. That we will also, in course of time, secure, we believe, the

THROUGH CONNECTION

Between the different railroads through the city with a grand central depot, with facilities for the transfer of both freight and passenger traffic. This alone can put Cincinnati on the through route of travel and traffic. Yet we fear that we are delaying those matters too long. Cincinnati should at once wake up to the importance of this subject, and see her true interests as others see it. The railroads now centering here can not much longer sustain the pressure of their necessities; if they can not get through with their traffic, those who have not already in whole or in part made arrangements to that effect, they will have to make cut-offs and pass around the city. The great legal triumph of the Front street connection is regarded as a "humbug" and almost worse than useless. The connection that is wanted must be free, unobstructed at all hours and seasons, to be used by steam power, and that will admit of the cheapest and quickest possible means of transit for both goods and passenger traffic. Nothing but the plan we have suggested will meet this necessity.

THE TUNNEL ROUTE

Into the city is another means that should be made use of to shorten the distance and close up the gap of time between the terminal points in which Cincinnati may, or may not be, as we choose to make it, a sort of central station. It is useless to disguise the fact, a saving of even one mile in distance is a saving of time as well as of expense. This is a proposition that intelligent persons will not deny, and constitutes, in connection with the fact that by this route trains avoid almost entirely the crossing and traversing of the avenues of common traffic within the city limits, the strongest arguments for its construction.

We feel confident in the assertion that if the above enterprises had been constructed, say fifteen, or even ten years ago, that Cincinnati would to day have had not less than one hundred thousand more inhabitants than she now has, and her tax duplicate been proportionally increased.

✎ A telegram to the daily papers, from Little Rock, says that the railroad measure voted on at the election has been carried by a large majority. The leading papers of the State and both parties supported it. The State law lately passed and now voted on, allows \$10,000 per mile on 850 miles of railroad projected. Bonds will be issued for the purpose.

✎ It is reported that the Erie Railway has bought the New York "Pike's Opera House," corner Twenty-third street and Eighth avenue, to be used as offices for their general officers.

Iron and Its Manufacture in the West.

In our last article we spoke of the discovery (for although known long ago, it is to this generation a discovery) of iron, of the best quality, in the interior of Indiana. Supposing the account given to be correct, it is undoubtedly of very great importance to Cincinnati. Looking into the election returns of this week, we see that the number of votes given in Chicago is considerably greater than the number in Cincinnati. This tells a story for Cincinnati as well as Chicago. It tells that the growth of Cincinnati has greatly declined in the ratio of increase. This must suggest to every reflecting mind an inquiry into the cause. We will state this in a very brief way. The growth of Cincinnati in former years has depended, in a very large degree, on the growth of its manufactures. This was the great element of its success, and must continue to be so, if properly cherished. The concentration of the pork trade did much, but that must necessarily go farther West. The produce trade in grain and whisky must go West, too, in a large degree, because hogs, cattle, whisky, &c., will chiefly depend on the immense surplus production of corn, which exists chiefly in the new States. While Ohio, Kentucky and Indiana are, and will remain, great corn producing countries; yet, in consequence of the increasing density of population, more land will be diverted to other kinds of culture, and more will be consumed by the immediate inhabitants, so that the surpluses, which build up trade will be less. The dependence of the interior must, in the end, be chiefly on the various kinds of manufactures, as we see in the City of Paris, which are necessary to the supply of the interior population, and which can be made cheaper there than they can be imported. In this respect, Cincinnati has an immense advantage; having, probably, a greater variety of materials near by her, for this purpose, than probably any other city. Especially is this the case in regard to iron, coal and lead. If grain be necessary to the subsistence of animals, iron is just as necessary to the comfort of all civilized life. It enters into all the forms of material civilization; and, hence, as a vast multitude of people fill up the Ohio Valley, the demand for iron in all forms will be constantly and largely increasing. This iron is manufactured into thousands of implements, machinery and construction. There is nothing but wood enters so largely into all the dwellings and machinery of men; hence, it is, that all large cities have an immense amount of iron manufactures constantly going on. Even the City of New York, which seems to be wholly commercial, has an immense amount of iron manufactures. But in the cities of the West there must be much more in proportion; for the demand will be greater, and they have the material at their door.

Cincinnati and St. Louis are, and must remain, by far, the greatest seats of the iron manufacture in the West. It has been supposed that St. Louis had a great advantage, in the fact of having the Iron Mountain so near her; but the iron mines of the Ohio river, in both Ohio and Kentucky are sufficiently near, and are capable to enable Cincinnati to compete with any place. Nevertheless, if the iron mine of Greene County (Indiana) be what it is represented to be—the best iron in the country—then it will unquestionably be of great importance to Cincinnati.

In order to show the magnitude and growth of the iron manufacture in Ohio, we make the following extract from the summary of the census statistics:

"The quantity of pig iron returned by the census of 1860 (Table No. 9) was 884,474 tons, valued at \$19,487,790, an increase of 44.4 per cent. upon the value returned in 1850. Bar and other rolled iron (Table No. 10) amounted to 406,298 tons, of the value of \$22,248,796, an increase of 39.5 per cent. over the united products of the rolling mills and forges, which in 1850 were of the value of \$15,938,786. This large production of over one and a quarter million of tons of iron, equivalent to 92 pounds for each inhabitant, speaks volumes for the progress of the nation in all its industrial and material interests. The manufacture holds relations of the most beneficial character to a wide circle of important interests intimately affecting the entire population; the proprietors and miners of ore, coal and limestone lands; the owners and improvers of woodlands, of railroads, canals, steamboats, ships, and of every other form of transportation; the producers of food, clothing and other supplies, in addition to thousands of workmen, merchants and capitalists and their families, who have directly participated in the benefits resulting from this great industry. It has supplied the material for an immense number of foundries, and for thousands of blacksmiths, machinists, millwrights and manufacturers of nails, hardware, cutlery, edged tools, and other workers in metals, whose products are of immense aggregate value and of the first necessity. The production of so large a quantity of iron, and particularly of bar iron, and the demand for additional quantities from abroad, tell of the progress of the country in civil and naval architecture and all the engineering arts; of the construction of railroads and telegraphs, which have spread like a net over the whole country; of steam engines and locomotives; of spinning, weaving, wood and metal working, milling, mining and other machinery; and of all the multifarious instruments of science, agriculture and the arts, both of peace and of war; of the manufacture of every conceivable article of convenience or luxury of the household, the field or the factory. The aggregate statistics of iron exhibit the extent to which the general condition of the people has been improved by this great agent of civilization during the ten years embraced in this retrospect.

"The materials for the manufacture of iron—ore, coal and other fuel, water power, &c.—are so diffused, abundant and cheap that entire independence of foreign supplies appears to be alike desirable and attainable at no distant period."

In the manufacture of machinery, Ohio

was the fourth State in the Union, having made machinery to the value of \$5,000,000. This was an increase of 125 per cent. on the products of 1850, and a greater increase in proportion to the amount than in any other State. We may add that four-fifths of this machinery was made in Cincinnati. This being the case, the importance of a new iron region in the vicinity, of better quality, is to Cincinnati of almost incalculable importance.

To show what advantages Cincinnati really has over any other Western city, we will give some of the comparative results of the iron production in the West, as late as in 1860:

IRON PRODUCT.

	Tons of Ore.
Ohio.....	228,794
Kentucky.....	73,600
Tennessee.....	53,320
Missouri.....	42,000
Michigan.....	17,900
Wisconsin.....	4,500

PIG IRON MADE.

	Tons.
Ohio.....	94,647
Kentucky.....	23,362
Tennessee.....	18,417
Missouri.....	22,000
Michigan.....	10,400
Wisconsin.....	2,000
Indiana.....	375

It will be seen that Ohio made more iron than all the other Western States put together. In addition to this, we add, that a large portion of the iron made in Kentucky and Tennessee is used in Cincinnati. There is four times as much iron made in Ohio as in Missouri. Three-fourths of it is made on the Ohio river, and crosses in some form to Cincinnati. It will also be seen that a small quantity of iron was made in Indiana, though in what section we are not informed.

STATISTICS OF IRON FOUNDRY IN THE WEST.

Ohio.....	\$1,650,000
Missouri.....	1,041,000
Kentucky.....	757,520
Illinois.....	605,428
Michigan.....	383,000
Wisconsin.....	377,000
Iowa.....	187,400
Indiana.....	168,575

Aggregate.....\$5,169,923

It will be seen that in 1860, Chicago, Milwaukee, Detroit, and the towns west, did not, together, produce as much from iron foundries as Cincinnati, but it will also be seen that Missouri is coming up rapidly in iron manufacture; this is a direct consequence of the vicinity of her iron and coal mines. If we want an example of what manufacturing, produced by iron and coal can do, we can find it in Philadelphia. This city has now about 700,000 inhabitants, being one, of a dozen or two, of the largest cities in the world. Yet, Philadelphia has very little ocean commerce of any kind, and her growth has resulted mainly from her manufactures, and these again have been the consequence

of the opening up of the Pennsylvania iron and coal mines.

We have arrayed these facts chiefly to show how great is the interest of Cincinnati in increasing her manufactures, and, especially, in immediately making the great Southern railroad. If that was made, and a productive bed of Hematite iron opened up in Indiana, an hundred thousand people would at once be added to Cincinnati.

UNION PACIFIC RAILWAY, E D—This great highway is beginning to be of immense service, not only to the Government as an economic institution, whereby it saves annually more than the interest on the total amount of the bonds which the Government has advanced (which the road will itself pay), but it has also become a feeder of the people, reducing the price of food to the working man by the enormous amount of cattle it brings forward to the Eastern markets, and that otherwise could not reach them, except in a very depreciated condition. During the month of October, of this year, the cattle traffic on this road amounted to *nine hundred and sixty-three car loads*, averaging eighteen head to the car, or a total of 17,334 beeves. We leave the eating working man to draw his own conclusion as to whether enterprises of this character are a benefit or an injury to the mass of the people.

The Pacific Railroads and Railroad Progress.

The great Continental line of railroad which is to connect our Atlantic and Pacific borders, and develop the interior in an ever increasing ratio, is now approaching completion. The latest official reports inform us that the Union Pacific has reached 880 miles from Omaha, the initial point on the Missouri river; and that the Central Pacific has reached a point 350 miles from Sacramento on the river of the same name, the western terminus in California. The total length of the two roads thus approaching union will be 1,657 miles, and hence only 427 miles remain to be constructed to finish the work contemplated.

The mission of this highway is by no means of a purely domestic character. It is to become the transit line of the commerce between the opposite sides of the old world. But the benefits to the territory through which it passes are already apparent. A few years ago the country traversed was scarcely a home for civilized man. It is now far on the road to prosperity, and settlements have been made and new States and Territories marked out with unprecedented rapidity. It is true that special natural inducements have operated largely to effect this result. But how much more rapid has the development been since these railroads were commenced. The miners of Colorado, Idaho, Nevada, &c., were virtually isolated from the world of commerce and dependent for intermittent communication on laborious travel over mountain and plain. Now their labor is made doubly remunerative by the facilities given to travel and transportation.

When these enterprises were commenced no railroad from the East had reached the banks of the Missouri river, and the only means the Union Company possessed of getting forward material and supplies was by way of that river. This was a slow and toilsome process, but it showed the necessity for the immediate construction of connecting lines, and the Chicago Division of the Chicago and Northwestern Railroad was extemporized, and since then a line of railroad from St. Louis to Omaha has been completed. Several other railroads in Iowa and Missouri, pointing to Omaha, are also in progress, so that the former deficiency will soon be fully supplied.

Nor was it alone in the States between the Mississippi and Missouri that the construction of the Pacific Railroads made farther improvements necessary. From the Mississippi to the Atlantic coast there was not a single line on the shortest route. To remedy this defect was a necessity; while to secure a share in the commerce that is to be developed by the Pacific Railroads has been the aim of all the railroad companies whose lines transverse this section, and the great cities of the Atlantic seaboard have been preparing for the commercial advantages to result from this interior enterprise.

That the greatest improvement should have been made in the new States west of New York, Pennsylvania and Maryland is not surprising. To these population has been directed in the greatest measure, and in them the defects in system were most notable. In the older States, east of that line, the system was more complete, but even in these extensive improvements have been made and are being made.

The result of much of this effort may be stated as follows: In 1865, the first forty miles of the Union Pacific Railroad was laid; in 1866 there was constructed 265 miles; in 1867 a further length of 245 miles, and to date in 1868 there has been constructed 330 miles, or, in four years, 880 miles. The Central Pacific, notwithstanding the intervention of the Sierra Nevada, has progressed with equal rapidity; and the Union Pacific (E. D.) is now in operation from Kansas City to Sheridan, 405 miles. Railroad construction in the States east of the Mississippi and west of Pennsylvania has been during this period as follows:

—Miles of Road.—			
	1864.	1868.	Incr.
Iowa.....	800	1,680	880
Missouri.....	920	1,200	280
Minnesota.....	160	560	400
Wisconsin.....	1,050	1,200	150
Illinois.....	3,100	3,400	300
Michigan.....	870	1,260	390
Indiana.....	2,200	2,600	400
Ohio.....	3,200	3,340	140
Total.....	12,300	14,110	2,890

—Cost of Roads.—			
	1864.	1868.	Increase.
Iowa.....	\$26,000,000	\$57,500,000	\$31,500,000
Missouri.....	47,000,000	56,000,000	9,000,000
Minnesota.....	5,000,000	16,800,000	11,800,000
Wisconsin.....	40,000,000	48,000,000	8,000,000
Illinois.....	117,500,000	157,500,000	40,000,000
Michigan.....	32,000,000	45,000,000	13,000,000
Indiana.....	71,300,000	104,500,000	33,200,000
Ohio.....	121,000,000	167,500,000	46,500,000

Tot., 459,800,000 652,800,000 193,000,000

Thus in these eight States in four years nearly 3,000 miles of new railroad have been

laid and millions of dollars expended, not only on these, but also in improving previously existing lines. The total increase in cost has been nearly \$200,000,000, or about \$15 per head of the population.

Among the principal railroads in progress or constructed in the four years referred to the following are the most important:

In Iowa: the Iowa division of the Chicago and Northwestern, the Iowa division of the Chicago, Rock Island and Pacific, the Burlington and Missouri River, the Sioux City and Pacific, and the St. Joseph and Council Bluffs. By the time that the Pacific Railroad is completed, the Rock Island and Burlington lines will have reached the Missouri.

In Missouri: the Pacific of Missouri, and the extensions of the North Missouri toward Iowa and the Missouri river. The Southern Pacific is also being extended southwest, and the St. Louis and Iron Mountain south, the latter to a connection with the Southern railroads at Columbus, Kentucky. The St. Joseph and Council Bluffs Railroad has also been completed to a connection with the Iowa railroad of the same name, giving St. Louis an indirect route to Omaha. Several other roads are projected to connect with the Union Pacific Railroads.

In Minnesota: the Milwaukee and St. Paul, the Winona and St. Peter, and the Minnesota Valley. Considerable progress has also been made in the first division of the Pacific Railroad and its branch north to Watab has been opened through.

In Illinois: the St. Louis, Jacksonville and Chicago, which gives another connection to the Illinois Central. The Rockford, Rock Island and St. Louis is now in course of construction, chiefly as a mineral road, and designed to supply coal to railroads, &c. The St. Louis, Vandana and Terre Haute, and the Cairo, Mound City and Vincennes are also in progress, with a view to their early completion.

In Michigan: the Jackson, Lansing and Saginaw, and the Flint and Pere Marquette are the principal new constructions. There is also being constructed a more direct line between Port Huron and Chicago, known as the Air-line. The Grand River Valley Railroad is approaching completion.

In Indiana: the Columbus, Chicago and Indiana Central Railroad has completed a line from Union City to Logansport and consolidated into itself the Chicago and Great Eastern, the Indiana Central and the Logansport and Burlington. There is also being built a line from Indianapolis to Vincennes to connect with the road to Mound City and Cairo; and several other lines are projected.

And in Ohio: several short lines, chiefly auxiliaries of existing lines. In this State several important consolidations have been effected.

Further East the principal developments have been rather improvements than new works. In New York the Erie is having a third rail laid to accommodate the narrow cars. The Hudson River has completed its second track, &c. The lines in progress from the Hudson have chiefly a northwestern direction, and will connect with the Central, the Midland being the most important. In a few years the Boston, Hartford and Erie will continue the Erie Railway to Boston. In the city of New York the depot and warehouse accommodation has been largely extended. In Pennsylvania, especially in the eastern portion, the extension of roads is being rapidly carried on, the objective points being Easton, on the Delaware, and New York City.

In the southwest of the State the construction of the Pittsburg and Connellsville Railroad to a connection with the Baltimore and Ohio is being carried on actively. New Jersey has also made extensive improvements in its railroads and accommodations for an increasing traffic. The works at Hoboken, Jersey City, Communipaw and Elizabethport are among the most extensive in the United States. In the Delaware peninsula railroad building is very active; and Maryland is connecting Baltimore more firmly with both East and West.

This activity in railroad construction and improvement is not local, but is every where apparent. It will bring many parts of the country, as yet isolated from markets, into connection with the centers of commerce, and tend largely to the development of national industry. It is the precursor of a vast revolution in the relations of distant parts of the country one with the other, and will result in a harmony of interests to which we have hitherto been strangers. In the South the same spirit of enterprise which has prompted the Northern States to action is fully roused, and in several instances where private capital has been wanting, the States have come to the rescue and supplied the means required. Tennessee, South Carolina and Alabama are conspicuous for the aid they have voted to great enterprises. In a few weeks the Selma, Rome and Dalton Railroad will be completed, and give us a more direct route to Mobile and New Orleans. So in every direction the maps are now networked with lines of road which the future is to realize.—*Financial Chron.*

The Cincinnati and Charleston Railroad —Letter from a Cincinnati to the Governor of South Carolina.

[From the Charleston News, October 28.]

We publish below a private letter from Judge Force, of Cincinnati, to Gov. Scott, on the subject of the Blue Ridge Railroad, for the purpose especially of calling attention to his statement of the reasons why Northern capitalists are indisposed to make investments in the South. The "turbulent feeling" of which Judge Force speaks is not as general as he has been led to believe, and with the close of the Presidential canvass will nearly, if not wholly, disappear. We know the necessity of developing the resources of the country, and the time which has of late been given to pure politics will, in the future, be mainly devoted to the consideration of the best means of increasing the quantity and value of our produce, of building mills and factories, and widening and deepening the ordinary channels of trade. The people of the South are growing more practicable every day, and it will not take long to convince our friends in the West that peace and security, and the toleration of adverse opinions, are as general here as in the States of the West and North:

"CINCINNATI, October 3, 1868.

"DEAR FRIEND—Before receiving your letter about the Blue Ridge Railroad, I had written to Mr. Harrison about my ill-success in seeing bankers as to the prospect of disposing of its bonds or stock here. They say, as is true, that New York is the market for securities, and persons here who deal in stocks do so chiefly by making purchases or sales in New York by letter or telegraph.

"Since then I have seen some business men of large capital, or, rather, men retired from business whom I know well. They do not feel inclined, now, to make investments in the South. The turbulent feeling there

does not invite investments. Capital is a tender plant that roots in undisturbed soil. They wish to see the people more inclined to develop the resources of the country; more inclined to work, and less absorbed in violent agitations.

"They do not look favorably on a region where immigrants are threatened with death or banishment for mere opinion sake. This banishing of people because they do not conform their opinions to a certain standard, seems childish to business men, and seems to indicate a condition of people who are not to be intrusted with large business enterprises.

"I repeat, without reserve, the view that business men take of the current vein of Southern feeling as indicated by the leading newspapers and the speeches of their leading men.

"The election of Grant, I hope, will introduce a change. We look to that to bring about peace, order, moderation, acquiescence in law, and, consequently, increased attention to industrial pursuits, and hence, prosperity.

"I want to see your railroad built. I should like much to see it completed through your instrumentality. When you come on I shall try what I can to forward your wishes.

"Very truly, M. F. FORCE."

Railroad Company Devours a Turnpike Company.

IN GENERAL TERM SUPERIOR COURT, CINCINNATI.

Peter Zinn and J. Kahny vs. the Cincinnati and Indianapolis R. R. Co., H. C. Lord et al.—The opinion in this case was delivered by Judge Taft.

The plaintiffs, two of the stockholders in the "Extension of the Lower River Road Company," claim that the railroad company took possession of a strip of land, part of the turnpike road, and converted the same to their own use without paying therefor, or making condemnation as required by law. They aver that the turnpike company had commenced a suit against them, and to escape damages the railroad company purchased the majority of the stock of the turnpike and elected officers in the interest of the railroad company, who caused said suit to be dismissed; also, that they mismanaged the affairs of the road, in which Zinn owns \$4,000, and the other plaintiff \$150 of the capital stock. They ask that the defendants may be declared trustees for the other stockholders, and liable for the unlawful conversion of the property, and that damages may be awarded to the plaintiffs proportioned to the amount of their stock. The defendants denied all charges of fraud and collusion; they allege they are a corporation authorized to construct a railroad; that the road was located on the Cincinnati and Whitewater canal, and the corporation appropriated, by proper proceeding, the bed and banks of the canal for its purpose as a railroad.

On motion of plaintiff, J. W. Okey was appointed a referee, and found the issue for plaintiffs, and that they were entitled to \$3,750 damages; and at the June Term the Court confirmed the referee's report and rendered judgment for plaintiffs.

A motion for a new trial was reserved to this Court.

The first point made was that the Judge erred in referring the case to a referee; but they regarded the case as equitable in its na-

ture, and not falling within the class of cases in which the parties can claim a jury.

The great question is whether by taking this strip of land on the north side of the canal and appropriating it to the exclusive use of the railroad company, the defendant has encroached on the rights of the turnpike company. The referee found for the plaintiffs, and there was nothing to show that he had decided contrary to the evidence, and no reason why the Court should interfere with the report in that respect.

The Court is of opinion that the turnpike company had a valuable interest or easement in the strip of land in question, which the canal company could not sell, nor the railroad company take without paying the turnpike company therefor. The circumstances appeared to make a case for the interposition of the Court on behalf of the stockholders; the majority had a greater interest in the railroad than in the turnpike, a fact which could hardly fail to operate against the minority, who were not interested in the railroad. The plaintiffs would be held to be entitled to the relief as found by the referee, and a motion for a new trial would be overruled.

Winter and the Pacific Railroad.

The Union Pacific Company's end of the railroad is in running order to the crossing of Green river, very near the eastern line of Utah Territory. Another twenty-mile section will bring it to the Utah line, and another to the junction of Ham's Fork with Black Fork. The latter point is laid down on the schedule of distances as 883½ miles east of Sacramento. Red Dome, at the northern end of Great Salt Lake, is the point where the railway touches the lake. It is 627 miles east of Sacramento, 256½ miles west of the Ham's Fork Junction, and about 296½ miles west of the crossing of Green river. From Green river to Red Dome, the point where their road will touch Salt Lake, the Union Pacific Company will have nearly 300 miles to build, and the last half of that will be the most difficult part of their work, including heavy blasting, grading, bridging and probably tunnelling. At last accounts the Central Pacific Company had reached Iron Point, 350 miles east of Sacramento and 277 miles west of Red Dome, which point the Central is struggling to reach before the Union Pacific. In this contest the Union Company has the advantage in the number of builders, the Central in the quality of work to be done. The Central Pacific are progressing at the rate of 2½ miles per day. If our winter is as late as usual they will not be much interrupted by snow until the middle of November, by which time they ought to reach Gravelly Ford, on the Humboldt, 414 miles from Sacramento, and 213 miles west of Red Dome. If the winter proves to be, as many anticipate, an average dry winter, we are not likely to have any snow to incommode out-door labor before the middle of February. In that case there is a fair chance that the Central Pacific Company can have their road in running order to Peoquop Pass (530 miles east of Sacramento and 100 west of Red Dome) before the inevitable March storms suspend work. But to do this they must still make head nearly at the rate of two and a half miles for every working day from this to the middle of February. The Union Pacific road is now but a little over 200 miles from Salt Lake City, while the Central is 377 miles from it on the west. If the Union Pacific

can progress for three months to come at the rate of 2½ miles per day, they will have reached the city of the Saints. At the very worst, if the winter does not set in before the middle of November, the Union Pacific will have its western terminus within 80 miles of Salt Lake City. If the winter remains open till the middle of January they will have nearly or quite reached Salt Lake City. There will then remain to be built only the gap between Peoquop Pass and Ogden, which is the point on the railway nearest to Salt Lake City. That gap is but 201 miles. It ought to be made by stage coaches in two days, and after the first day of February next we hope to be in regular receipt of New York letters and papers not exceeding eight days after they are mailed.—*Sacramento Union*, October 8.

The Public Lands—How to Buy Them, What They Are and Who Controls Them—A Talk with the Land Commissioner, Joseph S. Wilson—Some Points for Folks Going West.

We publish the following very interesting letter from a correspondent of the *Cincinnati Commercial*. Too much praise can not be bestowed on the very able Commissioner of the Land Office. Long may he live to perform the arduous and responsible duty of his all important position:

WASHINGTON, October 25, 1868.

The Patent Office is a handsome Doric temple, crowded with the models of cunning machines wherewith we have turned the edge of nature against herself. Climb one of the long flights of steps leading into it, turn down a broad hall, past office doors on either side, and in a corner you will see one room, guarded by neither flunkey nor policeman, inscribed,

"THE COMMISSIONER OF PUBLIC LANDS"

Open the door and you stand in the presence of that functionary himself, Joseph S. Wilson. In him you see the best posted man in the United States upon all the physical conditions of the public domain. To you, the United States is a medley of mysteries; he is a walking and ruminating cyclopædia, who from this office poises over the hemisphere and takes a bird's eye view of it. He represents all that the United States own of real estate. He is salesman, suggester, overseer, lawyer and register of all that pertains to two billions of acres of land on this hemisphere, as yet without individual owners. For a small salary—under \$4,000 a year—he is directly responsible, under the Secretary of the Interior, for the management of this mighty manor. To all practical intents he is the executor of Uncle Sam, charged with the custody of his property till the heirs are eligible to it, and when you sell out your farms in Ohio and go West to take advantage of the Homestead Act, it is with Mr. Wilson that you are put in unconscious correspondence. If you buy land out there it is the same. He is the preserver of the Government timber; the agent to make over lands to old soldiers, schools and colleges; the mapper out of coal fields; the adjuster of the Government gifts in soil to the Pacific and other railways. He is the surveyor of the whole of the public estate, and upon his survey depends the legitimacy of titles and boundaries of farms estab-

lished there for all time to come. He maintains a small standing army of chain-bearers and telescope-sighters, who are operating at this moment in a score of fields between Puget Sound and Texas, between Florida and New Mexico. And in all instances where a dispute arises between the Government, as landlord, and an individual claimant, he is the interpreter of the acts of Congress, and his precedents are decisive, or subject only to the criticism of the courts. Beyond this, Mr. Wilson, as a good salesman, must be doing something all the time, to make attractive the land he holds as executor. He is therefore alive to whatever of news or improvements in any part of the world is affecting his real estate. The precious metals coming out of the ground he owns, are topics of large concern with him. The addition of territory to his estate is a matter of gratulation. He is always seeing new avenues and new markets, where there is a rivalry and where there are purchasers. His reports are the most ingenious and versatile that go out of the Government printing office. Let us look at him.

A CHARACTER.

A round-headed, big-headed, gray-headed man, with bushy, grizzled eyebrows, a ready manner, a careless office dress, a stoutish body, and evident idiosyncrasies—this is Mr. Wilson. He has no beard, shaves roughly, carries creases in his cheeks and chin, looks as if it would be easy for him to laugh if he had only time, but suggests to you in the main a human steam engine, driving work perpetually; who tells even his anecdotes in a headlong way, and before he himself is done laughing at them, he is two or three paragraphs into some other business.

He has spent his whole life in the Land Office, where his father used to be a messenger. His brother is a prominent officer of the Treasury, who has advanced himself in the same way by native talent and address.

Our present study has a son in the Naval Academy, one at West Point, and I think, one in the army. He is, himself, a sleepless and scarcely a browsing being, who takes about four hours' rest out of the twenty-four, rises at three o'clock in the morning, and subsists chiefly upon tea, which he warms over the gas in his business office. He has not eaten a dinner, to be called so, for thirty years. To politics he pays no attention whatever, but drives his work as if it were his mistress in love and tyranny together. To his family he is as attentive as it is possible for one to be who has about an hour a week to give to them. In fact, "Joe" Wilson behaves as if he were trying to make up to the Government the time out of which she is cheated by all the rest of her employees.

His office is remarkable, as I have said, for the democratic regulations of it. The door-latch is always up; no body guard bars the way, but the habits of the occupant are, nevertheless, short and crisp. He rattles off his answer to your question in one long sentence, yet so excellently discriminated in expression that you feel, in an instant, how natural and perfect is his English. He spends no time in dallying with office seekers. A friend of mine saw Congressman Wilson, of Iowa, go in there, once, with a young man skulking behind him, whom the Commissioner felt, at a glance, was to be suggested for an office.

"Do you like the name of Wilson?" said the Congressman, smiling.

"No!" quite sturdily, "I am a great rascal myself, and I have no doubt if you make an examination you can say the same."

"Well, here's a young man of that name who wants a situation."

"Can't give it to him. Nothing here."

"Make him temporary clerk."

"No, sir! I never do that. There's no place requiring a man and I never create one. The Secretary can step over my head and do as he pleases, but I never recommend any body."

"Will there be a chance soon?"

"No!"

Wilson has never made removals or substitutions since he took charge of the department. With the force left to him he made such changes of function that the same material answered amply, and his own example as a desperate, devoted worker is so well appreciated by his clerks that he can frequently get some of them to set up all night for him.

Some time ago a Russian stopped in the city and brought with him to the Land Office a superb map, never before seen here, of all the Russian Empire in Asia and Europe. Mr. Wilson borrowed it one night, put it into the hands of a draftsman that he keeps, and the whole map was accurately copied before daylight. The Russian went away, but he left, unconsciously, his last possession behind him.

PROJECTS AT THE LAND OFFICE.

The Alaska purchase found few supporters so ardent as Joseph Wilson. He and Robert J. Walker were among the godfathers of that acquisition, and their industry saved the treaty from rejection by Congress. Since the purchase he has been constantly busy in collecting data and associating figures so as to awaken the nation to a sense of its interest in this new region.

Among other things he has just prepared a map of the world, on Mercator's projection, showing the routes of the commerce of Asia since the time of Alexander the Great. By this he demonstrates that the carrying trade of India having been engrossed by the Greeks, Romans, Venetians, Portuguese, Dutch, and finally the English, and having made them successively paramount in commerce, is at last to be in part open to the United States by her position on the Pacific and by the railway soon to be opened.

"The Suez canal," said I to Mr. Wilson—"will not that put London nearer to China than New York? It is to be opened, as you know, almost simultaneously with the Pacific Railway."

"No, sir; Melbourne, the capital of Australia, is 397 miles nearer New York than London, even by the Suez canal, 3,379 miles nearer San Francisco than London. New York is even nearer to Manila and the Philippine Islands than London. It is fifty-three days overland travel by Suez from London to Yokohama, Japan, and only twenty-six days from New York. The value of British teas and silks imported from China in the last five years was considerably over two hundred millions of dollars. The first trip the Colorado made out of San Francisco to Japan, trebled the whole commerce of America with Asia of the previous year."

In like manner Mr. Wilson has prepared a history of gold from the year 1492 to the present time, showing the quantity in the world, the loss by abrasion, the total mineral wealth of the United States, &c.

His inquisitiveness and industry have extended into disquisitions upon the laws of property under all governments. He is a French and Spanish scholar of fluency and nicety, and the amount of his information

on all sorts of matter, with whatever subject connected, is so versatile and spontaneous as to be amusing and marvelous together. People of all sorts come to the Land Office on business, and from each he culls something for his general fund of knowledge. He is minutely informed upon the extraordinary scheme of the Czar to make water line communication from the heart of India to Nizhnee-Novgorod, and in the winter time he gives a few private lectures in the city, which are regarded as among the quaintest intellectual entertainments of the "season."

Here we have some opportunity of exploring the mystery of our public domain.

WHERE ARE THE PUBLIC LANDS?

It may seem singular to many people that the public lands in States as old as Florida and Louisiana have not been surveyed up to this time. But the history of public surveys in the United States, about which so few people in the East know any thing, is really one of the most remarkable and among the eldest of our enterprises.

We survey lands now precisely as we began to survey them in 1785, in the fresh moments of our independence. From some point of altitude in each great district of country we run a base line east and west, and a meridian north and south. Upon these bases and meridians regular townships, six miles square, are carefully laid off, and accurately numbered in order, as north or south, and east or west of the original initial point. These townships are again divided into sections of a mile square, and subdivided even into quarters of quarter sections, or forty acres, which can be bought isolatedly.

You, therefore, who may wish to buy public lands, must buy them with reference to some one of these meridians, arbitrarily established by the Government Land Office. To the Land Commissioner, this, our country, is not computed by States and State capitals, but by meridians and bases. To him the United States is only ponderable as a confederacy of twenty bases and twenty three meridians.

The very first of the meridians ever established divides Indiana and Ohio. They all have names as systematically as our States. One of them for example, runs bolt through Brigham Young's Temple at Salt Lake, and a monument marks where the base line intersects this meridian. Another one is the San Bernardino Meridian, which intersects on the top of a peak in California.

To make you apprehend all this more clearly, let me give you the freshest example. Early in 1867, there was a rush of people to the new Territory of Montana. Immediately the Government appointed a Surveyor General for Montana. He came up to the Land Office, gave bonds, and received his instructions. Perhaps he had never seen the country he was to survey at all, but was soon made to understand that his work was no small responsibility.

First, Mr. Wilson gave him a map of his surveying district; then he gave him a four-pole surveyor's chain, of the exact standard measure, and also a standard yard measure, the same to be set up in the Surveyor General's office, that all the deputy surveyors might adjust their chains by them.

The new Surveyor General was then told that the first thing for him to do was to select some point in his district where to cross his meridian with his base-line. This initial point was suggested to him as a certain Beaver Head Rock, a high land-mark, visible

for fifty miles. The new meridian was thus to be named "Beaver Head Rock Meridian," and was to be the reckoning point for all the surveys in Montana. This point the Commissioner had heard of from explorers and travelers.

The new Surveyor General then struck out for Montana and set up his office at the town of Helena. He soon found a more conspicuous point than Beaver Head Rock—a high limestone cone near the head of the Missouri river. Here he established his meridian and base-line, and issued notices that he was ready to give contracts to surveyors. The Land Office and the Surveyor General's office were soon beset with people, demanding that certain sections be speedily surveyed. These were assessed the cost of the survey, and compelled to deposit the same at the nearest United States depository. There were some folks who had already settled and improved certain districts, and these pleaded pre-emption and wished to be ready to buy and sell advisedly. All the applicants for contracts for deputy surveyors were required to be familiar with Bart's solar compass, and the contracts themselves were required to be sent on to the Land Commissioner at Washington, to be confirmed. You can readily understand that the surveys were required to be of the nicest description; for the divergence of a very little from the standard meridian would, perhaps, effect boundaries and titles, and leave ground for law suits and quarrels among the settlers for all time to come.

MARCH OF THE ARMY OF SURVEY.

And so, the speediest surveys began in the mining regions, and in territories already populated, so that the people were put at ease as quickly as possible as to their titles and relations to the law. A hundred or more surveyors, measuring due parallel to base-line and meridian, put the country into townships and sections, numbered them rigidly, marked the coal deposits, surveyed around the swamps, and wherever there were towns or cities, the municipal outboundaries were adjusted to the United States lines.

Directly the Governor of Montana asked the Land Commissioner for a geological survey. This was refused, according to law; for the only geological survey authorized by special act of Congress, was that of Nebraska, not to cost more than five thousand dollars.

After a while an old maid of daring temperament claimed a quantity of ground as pre-empted, she having lived upon and improved it. The surveyor looked over his instructions, and found that only three classes of people were allowed the benefits of pre-emption, viz: Every head of a family, every widow, every single man over twenty-one years old. Not being able to classify this robust virgin under either of these heads, he sent on to Mr. Wilson for instructions. Mr. Wilson, being a property lawyer of great learning, proceeded to examine antiquity. He dissected the word *man* in the Anglo-Saxon, found it to be originally *mag-an*, meaning to be able or strong. Certainly this robust maiden was both. Therefore *man*, the contraction of *mag-an*, applied to both sexes, where a woman was over twenty-one years old and could come up to all the working terms of the pre-emption laws. At the same time it was laid down that unmarried daughters could not pre-empt where the parents were householders; for otherwise, a set of daughters might divide to get a quantity of land for one grasping father.

Now, to consider what is being done all

over the unoccupied part of this country, imagine a series of surveys like that of Montana, going on in twenty odd districts, the crossing parallels and meridians being as fixed and positive as the chains of mountains or the beds of streams. The land offices are frequent; the work goes on fast as populations pour in; sometimes a head of it, and so the map of much of the United States presents a plain, open to wolves and Indians, except where, here and there, the squares of survey checker its surface. The whole energy of the Government is turned toward the beneficence of filling up these regions with the industrious poor, who, it is hoped, will keep fee in the land and be contributors to the wealth of the Republic, and founders of happy families. The expenses of surveying the public lands are considerably over \$400,000 a year. By this we see where so many of the young men go who study surveying in the high schools and lyceums of the country. There is, in Washington City, a special manufactory of theodolites and surveying apparatus of various kinds. Ahead of emigration these batteries go, chipping the continent into fields, drawing the invisible outlines of homes, establishing upon immutable bases property, order and industry.

HOW MUCH PUBLIC LAND HAVE WE?

Excluding Alaska, we own in public land nearly a billion and a half of acres. Including Alaska, we own a billion and eight hundred millions. Half a million of acres of this has been surveyed. At the rate we sold and gave away land last year, two hundred years more will see the State, like a profligate heir, run through its whole possessions. In Florida we still possess seventeen and a half million acres; in Ohio only five hundred acres unappropriated; in Missouri nearly two million acres; in Alabama seven million acres; the same amount in Louisiana; in California one hundred and six millions of acres, so that that State really owns only about one-eighth of herself. Very few of the new States have any land claim to State sovereignty. Kansas, for example, belongs more than half to the United States, and Mississippi, when she seceded, as now, owed one-eighth of her soil to the United States. A vast portion of the property of this country is the property of nobody, but is the commonwealth of our confederacy, while spotting its surface, like sails at sea, are little tracts and hamlets set aside in obedience to some international law, or by the good policy of beneficence.

Among the people who have received certificates of pre-emption are the Pueblos (Indians) of New Mexico, actual tillers of the soil, who have secured about four hundred and fifty thousand acres of land. These Indians live in mud huts, with doors in the roof, which they climb into and draw their ladders up after them. Along the extremest boundaries of the Republic are left, also, spots of ground delegated to immemorial people, who will, perhaps, awaken some morning and find themselves rich. In California alone nearly six millions of acres have gone to satisfy old Mexican and Spanish claims.

While these cases serve to show that the Republic, in its onward movement, has been mindful of all civilized obligations, taking the land of no man without warrant, so does much of the public domain contiguous to the settled parts of the East exhibit a willingness to make the barbarous savages happy. East of the Mississippi, the republic of private citizens begins. After a State is fully surveyed

and the land sold, the archives of the Land Office within it are given over to the State, and so between Virginia and Pennsylvania and the Mississippi River, the bases of all your titles to your farms and homes began in this Land Office of the United States.

SWAMP LANDS AND RAILWAY LANDS.

By law the Government owns all the land between high water mark and the channels of tidal streams. This land has mainly been presented to the States adjacent to it, Government declining to assume the labor of redeeming it.

The United States has given away of swamp lands, valuable when reclaimed, three times the surface of Holland, Belgium, Limburg, Luxembourg and the Roman marshes. The value of this gift we may estimate by the fact that \$260,000,000 worth of land in the Texas bottom can be reclaimed at a cost of \$5,000,000. Nearly the whole of Holland is but reclaimed land in this way. It is with the design of inducing Government to redeem the country that it has already given away, that the people of Memphis, New Orleans, &c., are projecting a huge Bourbon whisky excursion down the great river. Those States have expended in rebellion what they should have put into their dikes. They ask Uncle Sam to fill up their celebrated last ditch.

Up to 1867, Congress had given to the Pacific Railroads 129,000,000 of acres of land. With what was also given to wagon roads, this amount of land is five millions of acres more than are included in New England, all the Middle States, Virginia, Maryland and Ohio to boot. The old provision of giving right of way to all plank and macadamized roads, expired last year, and is recommended for renewal. The Pacific railroads get alternate districts along their whole line of way, and so embarrass the surveyors, who are, meantime, pressed by people anxious to buy along the railway. The Pacific railways will take huge patches out of the manor of the country, but these would be scarcely visible on an atlas of the common scale.

The timber of the United States, situated upon its public lands, is forbidden to be cut by any body, and also by persons taking advantage of the Homestead Law, except for fencing and improving. Nobody is allowed to use the Government timber to fix up his land that he may speculate upon it before his five years of occupancy have expired. These regulations are more honored in the breach than in the observance, and we may be in sensibly approaching that era predicted by Sully, when France was to be uninhabitable because there was no woods upon it. In very few cases is any body prosecuted for cutting down wood upon the commons of the country, and the policy of the department is not to prosecute, but to compromise.

ROADS, COLLEGES AND SOLDIERS' LANDS.

The public domain has been mainly given to three great causes: Soldiers' homesteads, educational endowments and common roads. The history of the country in these respects is very thoroughly interwoven with the Land Office. We have made efforts constantly to get the veterans of the Indian, Mexican and British wars upon the public lands. Few of them, comparatively speaking, have appreciated the goodness of the country, preferring to let their lands pass away for deficit of taxes, or fall into the hands of shrewd speculators. In this way, if the soldiers of the country have not all seen the founders of homesteads, theirs is the fault. Between

1776 and 1855, about nine hundred thousand choice farms, of eighty acres apiece, have been given to the soldiers of our various wars.

Not only has the Government been mindful of its soldiers, but from the year 1785 we have steadily set aside parcels of land uniformly for the cause of education, and by this system you people of Ohio are now in the enjoyment of public schools and frequent colleges.

In the same way the road traversed by the teams of the pioneers to get into the Valley of the Ohio and Mississippi, were in great part laid by Government contributions of land. This was the case with the National road, from Baltimore to Wheeling, which road so largely contributed to make Cincinnati the Queen City.

About two and a half million acres of the public lands were set aside for colleges in the various States of the public domain, last year, or about one-third of the whole quantity disposed of. The whole amount of land to be given to educational causes, according to legislation now operating, will be, ultimately, about seventy-two millions of acres. Notwithstanding this, Mr. Wilson has recommended that another donation be made for a mining college, in the interests of the precious metals, whereby we shall discover some substitution for the means we have for reducing ores, whereby we now lose twenty millions of dollars a year. In 1862 all the States now existing were presented with thirty thousand acres of land for each Senator and Representative they had in Congress, as a fund to establish colleges in agriculture, mechanics and mines.

The Governor of Delaware was recently offered \$100,000 for the college scrip of that State, but he refused it, and demanded more than the Government rate of \$1.25 an acre.

SIX YEARS OF THE HOMESTEAD BILL.

Nearly one-fourth of all the public land disposed of in 1867 was taken for homesteads, or about 1,800,000 acres. Since the Homestead Act was passed, 60,000 farms, or more than 7,000,000 acres of land, have been taken up and occupied under it, and it is probable nearly half a million people are now existing and thriving on the public domain, by reason of this philanthropic legislation.

While Mr. Reverdy Johnson is assuring the builders of the Alabama and the Liverpool "Molls" of all sorts that our country and England are the same, only different, it may be well for the general reader to know that there are fewer landholders in England now than there were in the time of William the Conqueror. In the reign of William and Mary, less than two hundred years ago, there were one hundred and sixty thousand English landholders, while in 1861, while the population had increased six fold, the owners of the soil have decreased to less than thirty-one thousand. The American Homestead Act has made more proprietors of land than there are in all Great Britain. In America there are more than five millions of freeholders.

The disposition of American public lands in the interest of the poor, is at once a most novel and brilliant exemplification of the practical republicanism of the United States, and of the value of our great domain. While in England less than one-six hundred-and-fifty-third part of the people have any interest in the soil, here one-seventh of the whole number are proprietors.

The Homestead Law ranks beside the act of emancipation, the Declaration of Independence and the educational policy of the country, as one of our great ornaments of

wise philanthropy. Its results have been very pleasant and successful. It encourages to become farmers those who might otherwise take to mechanics or to mere clerical work, and it has a powerful influence abroad to bring as excellent citizens with stout hearts and thrifty purses.

COST OF RUNNING THE LAND OFFICE.

The salary of the Commissioner of Public Lands is \$3,000. His chief clerk and recorder get \$2,000. Nine principal clerks receive \$1,800. There are about 130 clerks with salaries from \$1,800 to \$1,200, and twenty-five laborers, &c., at from \$700 to \$800. All these are employed at Washington. Then there are twelve active surveying districts, each with a surveyor at from \$2,000 to \$3,000, and two or three clerks and a draughtsman at from \$1,100 to \$1,500. There are about sixty registers and as many receivers, with a salary apiece of \$500, one per cent. on the money they enter and receive, and fees for military and homestead lands. But above \$3,000 total compensation, all excess must be paid into the Treasury of the United States. There is a land office in Ohio, at Chillicothe, and in Indiana at Indianapolis.

Among the curiosities of the Land Office is a cabinet of minerals showing the perfect possessions of each State; and as we explore new domains from day to day, objects of practical value are brought to this office.

Among them I saw a coat fringed with human scalps, and a fishing boat of skins, both of which a few weeks ago adorned the solitudes of Russian America. Very palpable and suggestive were they of the real existence of that foggy realm which seems to us a dream merely, till by these solid and substantial implements of a barbarous inhabitation, we are reminded that its possession is among our responsibilities, and that our civilization is indeed projected to where the highest mountains of our hemisphere peep shiveringly down upon the Pole.

The nation is demonstrated here, in this its agency of distribution, to be more than an essence, an influence, an organization. It is an owner, a landlord, a proprietary, like the old Lord of Fairfax; and as he sent young Washington across the mountains to survey his great estate, so does the absolute Republic send in her surveyors, a Washington in every man, to mark the lines of fire-sides that may burn with the benignant warmth of happiness and independence, and rouse themselves to battle when the least of these is menaced.

Thinking over these things, Mr. Wilson looked to me like some old Moses permitted to see from Pisgah the land that was to be the inheritance of the people after his days of conjecture were over. And among his predecessors were some who played that factious part enacted by Balaam. Sitting on the mule called "Conservatism," chartered for this purpose by the Moabites of slavery, they proposed to curse the entire public domain, but the words of cursing were miraculously changed to gratulations like these, most applicable to our destiny, already apparent upon the great plains:

"How goodly are thy tents, O Jacob! and thy tabernacles, O Israel! * * He couched. He lay down as a lion, and as a great lion; who shall stir him up? Blessed is he that bleseeth thee, and cursed is he that curseth thee!"

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For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO. OF FORMS.	PRICES.	SIZE NO. OF FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 256	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms. And also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

W. H. MITH, Pres't, C.&I.C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., India: ag. c
Aug. 2, 1866.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same times as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Day Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

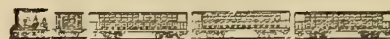
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a.m. and 18:00 p.m. On Sundays, one Express Train
at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change.
Cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. E.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p.m. Without change of cars from
New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:30 p.m.; passes Harrisburg at 3:00 a.m.;
Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at
7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Read-
ing at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at
1:19 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton
at 1:35 p.m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Read-
ing at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at
7:20 p.m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M

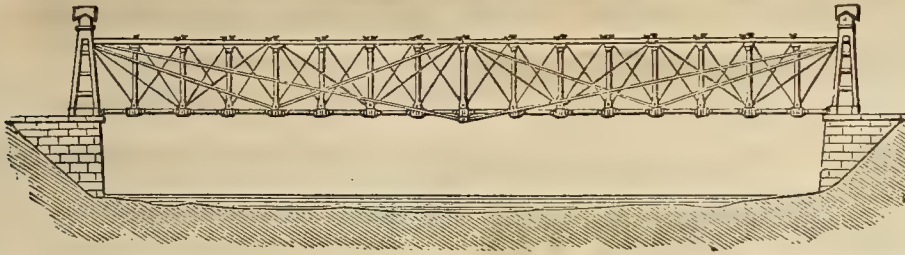
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the prin-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

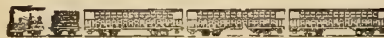
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
30 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnett House Office, corner Vine and Baker streets, and at the respective depots. East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE, General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.50 am	2 30 am
Carroll and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11 30 am
St. Louis Lightning Express. Sunday		
instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Cornersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnett House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER.



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works
June 9

THE SCHENECTADY

LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING

LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1 1/4 to 40 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from 1/2 inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—from 1 1/2 to 24 inches in diameter, and branches for same, &c.,

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. F. M. TASKER
HY. G. MORRIS.Philadelphia, Wilmington & Baltimore
RAILROAD!

FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted); 8.15 A. M.; 11.45 A. M. Express; 9.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express).

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at 8.25 P. M. for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, { Editors
T. WRIGHTSON.

CINCINNATI:

THURSDAY, NOVEMBER 12, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
Onesquare, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

CINCINNATI IN 1868.

Heretofore Cincinnati has been the subject of eulogy, and of self-laudation, not merely on account of its growth and success, but for its public spirit and liberality. We can not say that now, and if it was said, it would not be true. Public spirit scarcely exists, and liberality languishes. It is true, as we have stated in our last number, that there is much private munificence, in houses and stores, and there is some in the City Council. That body is engaged in laying the Nicholson pavement, and thus softening and expediting our ways. They have, moreover, actually laid out on the map three great avenues: nay, they have done more than that. They are actually making Eggleston Avenue; and this reminds us of what a thinking man will know to be true, that if the City Council had given as much money, and pledged as much credit to the Southern road, as they have to these things, that road would speedily be made. But let us go on; the Council has actually gone up on top of a hill, on the East side, and taken a pleasant talk over a little bit of ground they call Eden Park, out of everybody's reach, and about the twentieth part of the size of a real Park; but it is good in its way. Let that pass for what it is worth. This ye ought to have done, but not to have left the other undone. In our last number we showed how Cincinnati was *relatively* falling behind all the great cities of the West. Perhaps there are some persons who think it no matter, whether the city grows or not. They have got property, or business enough now, and they will live just as comfortably, whether the city is large or not. There are such people, and they are chiefly those who, or their children, have most at stake; being well off and have most to lose. This is the most stupid and infatuated notion which ever entered any man's head. Did any man ever see property rise, or even maintain its price, in a city which ceased to grow? In Amsterdam, when a man builds a house for himself or child, he never expects it can be sold for the same price it cost. Why? Because Amsterdam is built. It will never be more than it is. There is no margin of expectation for any one to go on. Hence, a house will not bring what it cost. The reverse is the case with a growing city. A house will bring more than it cost, because all property is expected to rise. Now, let us say a word to Mr. John Jones, who holds a large amount of real estate in the city, gets rents, and is well off; and really thinks a Southern Railroad is no matter to him.

Let us say a word to Mr. Jones. Americans will not stand still. They will not stay in a city which ceases to grow. Consequently, when once satisfied that this city will not grow, and another will, the active, industrious citizens and manufacturers leave. The competitive demand for houses and stores

ceases. The rents fall; and after a little time in this process, Mr. Jones, or his heirs, find that his income is not half what it was. He would not contribute to the public prosperity, and the public prosperity leaves him. If the city even ceases in half its growth, this effect will be partially produced. Rents will decline as competition ceases. Now, this is Mr. Jones' condition, exactly. He can not recline at his ease and expect the world to take care of him, without suffering from it. He must do his part in the world's progress, or not expect to share in it. And the condition of Cincinnati, as a whole, is just what Mr. Jones' is. Cincinnati must help itself, or it must cease to share in the general progress of the country. Our country is going forward so fast, as a whole, that this city will share something in the general growth. It will not wholly be still. But why should it not grow as much as other cities, which really have not its advantages? It would outgrow the whole of them, if it had the same degree of enterprise. What, then, is to be done? Mainly what we have constantly urged in the RECORD. Increase communication in every direction where new commerce is to be obtained. This is "harping on my daughter," we know very well. But it is not the less true. There arises to our mind one of the most memorable examples of what communications do for a city, which history affords. All readers remember Palmyra, by some called Tadmor of the Desert. This was, at one time, a great and brilliant commercial city. What made it? It was, indeed, in the midst of the Desert; but it was built up and made entirely by being the center of caravan routes. It was the center of communication across a great country. It was conquered, made unsafe, and the communication ceased. It dwindled and died, and Palmyra ceased to be. Now, Cincinnati can not die in this way, because it is in a rich country; but it may become quiet and sluggish; and barely dragging along, for want of communications which it might have had. Just look south of Cincinnati and see how the matter stands. South of the Ohio are 200,000 square miles of territory, which is entirely within the commercial control of Cincinnati; but with which she has communication only by the most laborious, difficult and round-about ways. How much communication has she with that country? A little coast on the Ohio River, and a little district on the Covington Railroad. That is the whole of it. If she gets any more, it is only by wagon roads. In the meanwhile, Louisville, which can in no way rival Cincinnati, if Cincinnati puts forth its strength, has wisely, and with great sagacity, put forth her energies, and got the Kentucky Legislature to do the same, in making her communications directly with the entire South. She made railroads to Nashville, to Memphis, and is now continuing her Lexington line, *via* Lebanon and Danville, to Knoxville. This is

right on her part, and is exactly what a city striving for trade ought to do; but, in the meanwhile, Louisville is getting into the heart of the country, where trade belongs to Cincinnati, and Cincinnati is not getting there! Well, what next? Nobody knows; but, one thing is very certain, if the non-policy, the non-enterprise, the non-public spirit prevails much longer, the grass will grow very green in Eden Park and in many other parts of the city. Well, says John Jones, what business is that of yours? None, Mr. Jones, except that once in a while some poor human may be expected to take some little interest in the affairs of other humans. But go on Mr. Jones. If nobody intrudes upon you with their enterprises, you will have a nice, quiet time of it. It costs you something now to collect your rents. With your ideas it will soon cost you nothing. You will live in a finished city, where nobody is in a hurry to occupy your houses, and still less to pay your rents. Good morning, Mr. Jones, we have made our speech and you can think upon it.

South Carolina—The Charleston and Cincinnati Railroad.

NEW YORK, November 10.

The *Times'* Charleston special says that Governor Scott, accompanied by General Sawyer and a deputation of prominent citizens, start for New York this morning, with the view of advancing the financial interests of the State, and enlisting Northern capital to secure the speedy completion of the Blue Ridge Railroad, which is the missing link in a continuous railroad line between Charleston and Cincinnati.

We clip the above from the telegraph reports to the daily press, as an evidence to the people of Cincinnati that the State of South Carolina is really in earnest in her desire to inaugurate those intimate commercial and social relations with our city and the great West, that can not fail to be of utmost advantage to both parties. The Blue Ridge Railroad is the great pet scheme of South Carolina, and will be built almost entirely upon the credit of the State. It is an expensive road to construct, but it will so develop the resources of South Carolina that if it cost four times the amount the advantages would be cheaply bought.

While speaking of the Blue Ridge Railroad we can not ignore the fact that its construction is of vast importance to Cincinnati; or rather would be, if Cincinnati *should* ever decide to (no, not decide to, she has done that often enough, but) construct the *direct connection* with the Southern system of railroads.

Well, we will say that we have hopes, as the parties having the matter in charge are getting ready to move, and we are assured that the basis of negotiations for the reserve means has been satisfactorily arranged, and the President of the Cincinnati, Lexington and East Tennessee Railroad expects, within

the next week or so, to be able to say to the citizens of Cincinnati, that if they will do certain things that he will do the rest. Mr. President, push on the column, and our word for it, Cincinnati will respond.

Pacific Railroads and the Indian Problem.

Governor CRAWFORD, of Kansas, has resigned and been commissioned Colonel of the new regiment of cavalry raised by the State for service against the Indians. The Lieutenant Governor will act as Governor during the remainder of the term.

The present Indian troubles would never have occurred if the Government had extended aid to the Kansas Pacific Railroad sufficient to enable it to extend its track to Denver; it would positively have cost less to have done so than has been already expended in extra military services. We should then have had the road a clear gain—the Indian difficulties would not have commenced, and the worthy and patriotic Governor could have finished his term in peace. The true way to settle this *Indian Problem* is, as we have frequently suggested, to push the grand column of civilization by the rapid construction of a judicious system of railroads across the continent, and then we may rely on it, the Red-skins will be as "whist as mice," and the twenty or thirty millions annually spent in fruitless attempts to capture and then reward the "untutored," but well-drilled devils, will be saved to the Treasury, and be so much less to wring from the "toiling millions" of our own race.

The Darien Canal.

On the occasion of the recent trip of the Hon. Secretary of State, to Auburn, to attend to the great national duty of voting, he accepted the invitation of the corporators of the "Isthmus Canal Company," to attend a meeting on the 21st of October, in New York city, when he made some very interesting remarks. The cost of the proposed work is put at \$100,000,000. The following gentlemen are the Commissioners to obtain stock for this gigantic enterprise:—William T. Coleman, Marshall O. Roberts, Cornelius K. Garrison, William B. Duncan, and Richard Schell. There have been some four or five routes surveyed across the Isthmus, viz: the Tehuantepec, Honduras, Nicaragua, Panama and Atrato. We suppose the gentlemen above named, who are among the ablest men of New York city, purpose to construct what is known as the Panama route, from the Bay of Lemon on the Atlantic, to the Bay of Vaca de Monte, on the Pacific; or substantially the route of the Panama railroad. In the construction of this canal the summit level will be 135 feet above high water from the Pacific, requiring 17 locks on the Pacific slope, and 18 on the Atlantic; it will also require a tunnel through the mountain at this level of 25,361 feet long, the roof of which is to be 121 feet high.

The following table shows the distances from New York to the several important points named, and the distance saved by the construction of this canal.

From New York to	Via Cape Horn. Miles.	Via Panama. Miles.	Distance saved. Miles.
Calcutta.....	23,000	13,400	9,600
Canton.....	21,500	10,600	10,900
Shanghai.....	22,000	10,400	11,600
Valparaiso.....	12,900	4,800	8,100
Callao.....	13,500	3,500	10,000
Guayaquil.....	14,300	2,800	11,500
Panama.....	16,000	2,000	14,000
San Blas.....	17,800	3,800	14,000
Mazatlan.....	18,000	4,000	14,000
San Diego.....	18,500	4,500	14,000
San Francisco.....	19,000	5,000	14,000
Wellington, N. Z.	11,100	8,480	2,620
Melbourne, Aust.	12,720	9,890	2,830

Of the vast advantages of such a canal there can be but one opinion; the only questions are, is it practicable, and will it pay.

The only question of practicability is in reference to the supply of water on the summit level, which has not been satisfactorily demonstrated, although it is believed it will be sufficient. The question of remuneration may be judged from the following facts:

The value of Exports and Imports from the United States that would pass through the Canal, would be according to official returns for 1857..... \$100,294,687
Value of ships at \$50 per ton... 92,874,250
Or a total value of ships and cargoes for the United States of... 193,168,937
Of England, as per returns of 1856..... 190,649,584
(Of France, returns of 1857.. 67,210,609
Other countries..... 16,802,000

Total value of traffic & ships...\$467,831,130

The annual saving by the construction of this canal to the commerce of the U. States would be, as per official statistics of 1857:

Insurance on vessels and cargoes, \$3,863,378
Interest saved on cargoes..... 3,008,840
Saving of wear and tear of ships, 5 per cent..... 4,643,712
Saving of freight money (by time) 11,250,000
Saving of wages, provisions, crews, etc..... 13,230,000

Total annual saving to United States commerce\$35,995,930
Total annual saving to English commerce 9,950,348
Total annual saving to French commerce 2,183,930
Other countries..... 1,400,000

Total saving..... \$49,530,208

At the meeting, charts of the proposed route were exhibited, showing the feasibility of the scheme, and entire confidence in its success is expressed. In the course of the meeting Hon. William H. Seward spoke as follows:

GENTLEMEN: Ever since the canal of the Pharoahs across the Isthmus of Suez fell into disuse, and was lost under changes of society and nature, commerce has desired the restoration of that original and most feasible channel of trade and intercourse between the Atlantic and Pacific nations. The discovery of the Cape of Good Hope supplied a costly and hazardous substitute, which was eagerly ac-

cepted. The exploration of the newly discovered American continent at the beginning of the sixteenth century, disclosed at once necessities for a better channel across the continent, and made a full revelation that that better channel could be constructed across the Isthmus of Darien, and nowhere else. During the past three hundred years, statesmanship and humanitarianism have combined with ever increasing diligence and effort to find the means of effecting an enterprise which is, perhaps, the only one that has commanded universal assent, and commended itself to the desire of all mankind. Every advance of modern civilization in Europe, the establishment of every new nation in America, every opening of any secluded Asiatic State and nation that has occurred, has increased the zeal and energy of the friends of progress in favor of a canal across the Isthmus of Darien. We habitually say and feel that we are living in an interesting and important period. We do indeed have occasion and opportunity to labor effectually in various ways in the cause of civilization and humanity; but, if I mistake not, the chief of all the advantages of statesmen of the present day of all the countries, is that they can take part in the construction of a canal across the Isthmus of Darien. Gentlemen, to accept our respective parts in this great enterprise is the work of this night. We are Americans. We are charged with responsibilities of establishing on the American continent a higher condition of civilization and freedom that has ever before been attained in any part of the world. We all acknowledge and feel this responsibility. The destiny which we wish to realize as Americans is plainly set before us and distinctly within our reach; but that destiny can only be attained by the execution of the Darien ship canal. The reasons are obvious. While the electric telegraph can and must be used for the interchange of ideas and will between nations, while the highways must and will be used for overland travel and intercourse, yet, the mineral, forest, and agricultural and bulky productions of the earth can only be by navigation, and this navigation must be made as cheap, and as expeditious as is possible. But the navigation by sailing vessels must come to an end, and commerce is confiding the trust of navigation exclusively to steam vessels. Commerce can no longer afford to use the circuitous and perilous navigation around the Capes. It must and will have shorter channels of transport, and of these there can be but two—the one across the Isthmus of Suez, and the other across the Isthmus of Darien. A canal across the Isthmus of Suez already approaches its completion. If this channel is to secure the patronage of universal commerce, it will be fully enlarged and completely adapted to the interests of modern commerce. In that case even the commerce of the Atlantic American coast, from the St. Lawrence to Cape Horn, will be turned eastward across the Atlantic, and through the Mediterranean and Red Seas, and Indian Ocean to India and China. It would be a reproach to American enterprise and statesmanship to suppose we are thus to become tributaries to ancient and effete Egypt, when by piercing the Isthmus of Darien we can bring the trade of even the Mediterranean and of the European Atlantic coasts through a channel of our own, so palpably indicated by nature that all the world has accepted it as feasible and necessary. We have undertaken to develop the resources of our own continent, and to regulate

and restore the Asiatic nations to free self-government, prosperity and happiness. The Darien ship canal is the only enterprise connected with the great work of civilization which remains to be undertaken. It was a mistake that we have been hitherto either inactive or idle in regard to this matter. We have built a railroad across the Isthmus of Panama, and within twelve months more we shall have stretched a railroad across the continent from New York to San Francisco. We have abundant assurance that these achievements are profitable and useful. Both of them, however, are profitable and useful only as types and shadows of the Darien ship canal, which we know must be transcendently profitable and transcendently useful. The Executive government of the United States, gentlemen, has adopted the enterprise with which you are charged. It has provided for a full, satisfactory and final survey, preparatory to the Darien ship canal. It is engaged in negotiating with the Republic of Columbia for its consent to your achievement of the enterprise. The President will go forward with renewed zeal and vigor on receiving the assurances which you have given me that the City of New York has named the men who will undertake that achievement and stand ready to furnish the hundred million of dollars which it may be expected to cost. Personal courtesies such as yours, gentlemen, deserve personal acknowledgments. In return for the kindness with which you have received me in your enlightened and noble consultations, I can only give you my sincere thanks, and say that if I shall be able to identify my name with yours in the prosecution of this great enterprise, I shall certainly feel more assured hereafter than I have ever been heretofore that I have lived not altogether in vain.

Official Programme of Recommendations and Resolutions to be Presented at the Annual Board of Trade Meeting at Cincinnati, December 3.

The following was presented to the members of the Chamber on 'Change to day, and referred for publication:

CASH SALES OF PRODUCE.

The Chicago Board of Trade recommends that,

WHEREAS, The custom prevails in most cities at the seaboard of selling produce, provisions and other property nominally for cash, but in reality upon a credit to the purchaser of from five to fifteen days; and

WHEREAS, The western or interior consignor of such property has been in many cases obliged to suffer loss by credits so given by his consignee to irresponsible parties, and at other times has been obliged to pay largely for guarantee by his consignor of such sales or credit; and

WHEREAS, It is demonstrated by the experience of those cities, where the custom alluded to does not prevail, and where capital is less abundant than at the East, that it is not necessary to grant such credits, but that property can be paid for on delivery of control of it, as well as at a later day; therefore

Resolved, That it is the opinion of the National Board of Trade that all sales of grain, flour, provisions and other similar property consigned for sale on owners' account to commission merchants, should be sold for cash, on delivery.

Resolved, That this body recommend to local organizations associated with it, the

adoption of such regulations touching the sale of and payments for property as will conform to the spirit of the foregoing resolutions.

RESUMPTION SPECIE PAYMENTS.

The St. Louis Board of Trade recommends "a declaration in favor of an early return to specie payments, and of the adoption by the National Government of measures efficient for that purpose.

TELEGRAPHIC REFORM.

[From the St. Louis Board of Trade.]

We recommend a declaration in favor of the adoption by the General Government of measures to cheapen and extend telegraphic communication between the different points of the country, by making it a part of its postal system.

INTERIOR PORTS OF ENTRY.

[From the St. Louis Board of Trade.]

We recommend the passage of a law declaring the cities of Chicago, Cincinnati, and St. Louis, ports of entry, under such restrictions and regulations only as shall protect the Government against fraud.

NAVIGATION OF THE MISSISSIPPI.

[From the St. Louis Board of Trade.]

We propose a declaration in favor of the removal, by the General Government, of all obstructions to the navigation of the Mississippi River and its navigable tributaries, and the recommendation to all municipal authorities, located thereon, of such modification and reduction of their local charges as shall render the commerce of said rivers as free as possible.

WATER COMMUNICATION BETWEEN THE ATLANTIC OCEAN AND THE MISSISSIPPI VALLEY.

[From the Louisville Board of Trade.]

Resolved, That the Board cordially responds to the Memorial and Resolutions of the State of Iowa, to the Senate and House of Representatives of the United States, in favor of a water communication between the Atlantic and Mississippi Valley, by the way of the Ohio, Kanawha, and James River, and the James River and Kanawha Canal.

Resolved, That cheap transportation for its heavy products to the markets of the world is not only a necessity to the West, but is equally demanded by the best interests of the whole country.

Resolved, That the most feasible plan to secure this end is to provide a direct and continuous line of water communication between the Mississippi River and the Atlantic Ocean, in a latitude favorable to the safe carriage of grain in bulk, and yet comparatively free from obstructions by frosts; that such a communication can be readily secured by the Ohio, Kanawha and James rivers, through Virginia to the Atlantic Ocean, near the mouth of the Chesapeake Bay.

Resolved, That said line of water communication is a work of great national importance, and as such is entitled to receive such aid from the General Government as will secure its completion at the earliest possible period.

Resolved, That — — — are hereby appointed a committee to memorialize the Senate and House of Representatives of the United States in behalf of the body, and ask them to take the subject of said water-line communication into favorable consideration at

an early day, and to grant such aid as may be necessary to secure its early completion.

SOUTHERN PACIFIC RAILROAD.

From the Louisville Board of Trade:

WHEREAS, The commercial interests of the whole country demand speedy, uninterrupted and reliable railroad communication between the Pacific coast and Mississippi Valley by more than one route, in order to avoid the dangers of monopoly and the anticipated delays and detentions from snow and ice upon the Union Pacific Railroad, which may, in the opinion of many competent engineers, even cause a total stoppage during the winter months; and,

WHEREAS, The parallel of 32 degrees offers a route across the State of Texas through Arizona to San Diego, on the Pacific, which is at all seasons of the year free from snow; also, shorter in distance and devoid of engineering difficulties, beside furnishing the Southern States of the Union facilities for trans-continental intercourse, such as a more Northern route can never afford; and,

WHEREAS, The said road, if built, will induce the settlement of the magnificent country in Northern Texas, thereby relieving the Government from the heavy expense of guarding the frontier lines with large bodies of troops now stationed there, and effect a great saving in the expense of supplying the military posts of Arizona and New Mexico, besides developing the vast mineral resources of these territories and opening a greatly required communication with the northern portions of Mexico; and,

WHEREAS, The South, in its present disorganized condition, can command from no other source the capital requisite to construct this road, and believing, as we do, that in extending to it aid and assistance the Federal Government will be pursuing a course of wise economy; therefore, be it

Resolved, That the interests and prosperity of the whole Union demand that the Congress of the United States shall assist by the loan of its credit, the line of road from Shreveport, Louisiana, extending westwardly to the Pacific, at San Diego, in the same manner in which it has heretofore under the Union Pacific Railroad.

AMERICAN SHIPPING.

The New York Exchange offers: That the New York Produce Exchange having a deep interest in the prosperity of the commerce of the country, and feeling that the United States flag can be restored to its position on the ocean, proposes the subject of the restoration of the United States flag to the ocean from which it was driven by rebellion, and from which it was kept by want of proper legislation.

On the same subject the Boston Board of Trade sends the following: "That the National Board of Trade respectfully and earnestly urges on the Congress of the United States the enactment of such measures of relief to the foreign and domestic commerce of the United States as shall enable us to compete with the commerce of other nations on the ocean, and thereby permit the promoters of our merchant marine to regain for our country her proud position on the high seas, from which she has been driven by the late war of rebellion."

INTERNATIONAL MARITIME LAW.

The Baltimore Board of Trade submits:

WHEREAS, The Board, in response to a com-

munication from the Birmingham Chamber of Commerce, February 9, 1867, did unanimously adopt the resolution:

"That, in their opinion, the declaration of the principles by the Congress of Paris in 1865 falls short of the demands of civilization, the requirements of commerce, and the growing desire to lessen the calamity of war, in not extending to private property of belligerents on the ocean the freedom from seizure, proclaimed for that of neutral;" therefore, be it

Resolved, That this Board presents to the National Board of Trade, to assemble in the City of Cincinnati,

AMENDMENTS TO THE CONSTITUTION,

as follows:

WHEREAS, There is no provision in the constitution of the National Board of Trade allowing the sending of substitutes for the regularly selected delegates; and,

WHEREAS, It may frequently happen that the delegates (duly elected) may be unable to attend some meetings of said Board; and,

WHEREAS, It might be desirable for the Board to send delegates peculiarly fitted to advocate or defend some particular interest or matter at a special or regular meeting of said Board; be it

Resolved, That the Board present to the National Board of Trade the following, as an addition to the constitution, viz:

ARTICLE II.

It shall be competent for any local organization to send substitutes for any of their regularly selected delegates to any meeting of this Board.

ARTICLE IV.

Offered by the Philadelphia Board of Trade, to strike out Section I and insert as follows:

SECTION I. The officers of the Board shall be a President and four Vice Presidents, who shall be elected at each annual election, by ballot; and on a majority of all the votes cast, they shall serve until their successors are chosen.

Stated elections shall be the first business in order.

The administration of the Board shall be vested in the President and Vice Presidents, and one delegate from each State that may be represented by delegates in attendance at any annual meeting; but no delegate shall be chosen from any State that is already represented by the President or by a Vice President.

Such delegates shall be elected in the same manner as the President and Vice Presidents.

The Board may, by a vote of two-thirds of the delegates present at any annual meeting, elect additional delegates to the Executive Council from such localities as it may deem of sufficient importance commercially to be entitled to such representation. The officers and delegates so chosen shall be known as the Executive Council.

Five of their number shall constitute a quorum for the transaction of business.

In the absence or disability of the President, a Vice President to be designated by his associates shall preside; and if the President and all the Vice Presidents be absent, then a chairman *pro tempore* shall be chosen by the members of the Council present at any meeting.

ARTICLE X.

Proposed by the Boston Board of Trade, to "strike out the word 'sixty' in the fourth line of Section 1, and insert the word 'forty,' so that notice of proposed amendments shall be required to be submitted 'at least forty days previous to the meeting' at which they are to be considered."

UNION PACIFIC RAILWAY, EASTERN DIVISION.

[From the St. Louis Board of Trade]

We recommend a deduction in favor of the continuance by Congress of such subsidies to the Union Pacific Railway, Eastern Division, as shall be sufficient to provide for its extension to the Pacific Ocean as a distinct road.

TARE ON COTTON.

[From the Providence Board of Trade.]

This Board proposes for consideration the subject of allowance of tare on cotton, for the weight of bagging ropes or hoops.

INSTRUCTIONS TO THE SECRETARY.

[From the Baltimore Board of Trade.]

Resolved, That upon the presentation to Congress of any bill to alter the duties on imports, or change the internal revenue laws, it shall be the duty of the Secretary to send printed copies of said bill or bills to each constituent body.

Resolved, That whenever it is contemplated to make a change in the law imposing duties on imports or the internal revenue, it shall be the duty of the Secretary to notify the proper committees in both houses of Congress of the existence of the National Board of Trade, and to offer the services of the Board to assist the committees in perfecting the proposed law.

DUTY ON INDIA CLOTH.

From the Louisville Board of Trade.]

WHEREAS, A bill has been introduced before Congress to reduce the duty on India cloth from three cents per pound to three cents per yard, equal to a reduction of 3 40 100 cents per yard; therefore,

Resolved, That we desire an investigation of this matter by the National Board of Trade, and ask their protest against its adoption, as it would materially injure the hemp interest in Missouri and Kentucky, and the flax interest in Illinois, Indiana and Ohio. Each of these States are largely engaged in the culture and manufacture of either hemp or flax; they ask the continuance of the protection which the present duty gives, and believe that a reduction would result to their injury, and entail a heavy loss in revenue to the Government.

Receipts of the Western Union Railroad Company for the week ending October 31:

	1868.	1867.	Inc.	Dec.
Freight.....	\$23,519 91	\$34,308 49	.....	\$10,788 59
Passengers.....	6,449 75	5,785 35	1,064 40	.....
Express and Tel.	350 00	570 00	.....	.....
Mail.....	375 00	375 00	.....	220 00
Totals.....	\$31,094 66	\$41,038 84	\$1,064 40	\$11,008 58

Receipts from January 1, to October 31:

1868.....	\$662,356 33
1867.....	640 807 28
Increase.....	\$21,549 05

The Philadelphia and Erie Railroad—Pennsylvania's Seaport and Lakeport Route.

Our short article, last week, on the "Anthracite Coal Trade on the Philadelphia and Erie Railroad," has elicited so many inquiries—all indicating re-awakened interest in Philadelphia's long deferred but now keenly enjoyed lake route—that the subjoined facts are given as additional data, showing the proprietorship and status of the work.

The Philadelphia and Erie Railroad Company (under the name of the Sunbury and Erie Railroad Company) was incorporated as early as April 3, 1837. The work of construction, however, was not commenced till 1852. In December, 1854 that portion of the line between Milton and Williamsport, 28 miles, was opened to public use; and in September, 1855, the link between Milton and Sunbury, 12 miles, was completed. At date July 1, 1859, the road was opened from Williamsport to Lock Haven, 26 miles. August 1, 1859, from Lock Haven to Whetham, 15 miles. December, 1859, from Erie city to Warren, 66 miles. These several links measured jointly 147 miles.

In 1861 the Philadelphia and Erie Railroad Company leased their road to the Pennsylvania Railroad Company for 999 years from January 1, 1862, the lessee to have seventy per cent. of the gross receipts for operating the road, the lessor to receive thirty per cent. for the use of the road.

On the 1st of September, 1862, the road was opened from Whetham to North Point, 8½ miles—the first installment of new line under the lease.

On the 17th October, 1864, trains began to run, according to time table, all the way through from Sunbury to Erie city, 288 miles.

Under date, February 20, 1864, J. Edgar Thomson, President of the Pennsylvania Railroad Company, in a circular letter commending Philadelphia and Erie Railroad bonds to investors, gave a statement showing that if the road earned "only \$6,000 per mile, for the whole length of the road, 288 miles," the aggregate receipts, after deducting seventy per cent. for operating expenses, would leave to the credit of the Philadelphia and Erie Railroad Company "\$518,400," out of which he deducted \$378,000 for interest, "leaving the sum of \$140,400" surplus.

For the year 1865, the first full year subsequent to inauguration to public use, the road earned \$2,074,140, equal to \$7,201 87 for each mile, being twenty per cent. in excess of Mr. Thomson's estimate!

In 1866, the second year after its inauguration, the road earned \$2,501,051, equal to \$8,823 per mile.

For 1868, according to estimate based on the business of the ten months expired, the earnings of the road will perhaps exceed ten thousand dollars per mile.

The territory tributary to the Philadelphia and Erie Railroad is of immense area, abounding in resources of mine, well, field, forest, all in rapid process of development. From Sunbury 138½ consecutive miles of the road follow West Branch waters, the maximum grade being only seventeen feet—a good run for a locomotive, over a level way, with a heavy train.

From Sunbury to Lock Haven, 66 miles, the road traverses the populous, fertile and prosperous valley of the West Branch, in which is situated Williamsport, a city of fast accumulating population and opulence. These 66 miles of road have been in use nine years,

in which time the way business of the road has duplicated over and over again.

From the Alleghany river at Warren to Erie city, 66 miles—same distance as from Sunbury to Lock Haven—the road has been opened nine years, less one month, and here, too, the local traffic has attained importance, independent of the consequence derived from communication with the oil region.

Between Lock Haven and Warren, 156 miles, in what was a region of almost unbroken forest, there are now numerous saw-mills and tanneries—also a cordon of thrifty towns—all indicative of settlement, industry, progress, mechanical thrift, commercial profit.

At the mouth of Bennett's Branch, 120 miles from Sunbury, the distance north to the Erie Railway is sixty miles in air line, whilst south to the Pennsylvania Railroad the air line distance is fifty miles! The topography of this wide belt of country, moreover, between the Philadelphia & Erie Railroad and the great parallel trunk lines named, renders it financially impracticable that any opposition road can occupy intermediate ground on either side, wherefore the local trade of a series of productive counties is assured, now and henceforward, to the Philadelphia & Erie Railroad.

Thus, with the city of Philadelphia and the anthracite region available from one end, the lakes and the oil region available at the other end, and an area of thousands of square miles tributary to its way stations, the future of the Philadelphia and Erie Railroad is bright with tonnage totals and income consequences.

The Philadelphia & Erie Railroad, which has now been four years in use from end to end, is owned, in majority part, by the Pennsylvania Railroad Company, whose management of it will doubtless be followed by the same dividend result which ensued on their acquisition and control of the Northern Central and Cumberland Valley railroads.

In his report dated February 10, 1868, Edward F. Gay, Esq., President of the Philadelphia and Erie Railroad Company, says the Pennsylvania Railroad Company own 48,000 shares of Philadelphia and Erie preferred stock—the whole issue—and 31,636 shares of Philadelphia and Erie common stock, making—

79,636 shares, amounting, at par, to \$3,981,800
Held by city of Philadelphia, 48,000 shares..... 2,250,000

Held jointly by Pennsylvania Railroad Company and city of Philadelphia, 124,636 shares..... \$6,231,800

Capital stock Philadelphia and Erie Railroad Company:

Common.....	119,934 shares.	\$5,996,700
Preferred.....	48,000 "	2,400,000
Total.....	167,934	\$8,396,700
Deduct city & Penn.		
E. R. Co.....	124,636	6,231,800
Leaving in other hands....	43,298	\$2,164,900

Of these shares "in other hands" very many are salted down to wait till the road enters on its dividend career, for there are many persons of sagacity and foresight who have not forgotten the history of the Philadelphia and Trenton Railroad; Philadelphia, Wilmington and Baltimore Railroad; Philadelphia, Germantown and Norristown, Harrisburg and Lancaster, Cumberland Valley, Northern Central, etc. For the logical sequence to the occupation of the West Branch valley and lake port route is increasing business and accruing income to the Philadelphia & Erie Railroad.

The city of Philadelphia for a long term of years has been paying interest on \$2,250,000 of loan created to pay for that amount of

Philadelphia and Erie Railroad stock at par. But as the money wants of the Philadelphia and Erie Railroad Company are not yet all satisfied, it may be adjudged to be simple equity, after the close of the year, when the surplus fund derivable from the thirty per cent. of the gross earnings shall have received a new and large credit, to make a distribution of dividend shares, in lieu of money. The amount of stock held by the city, and others, would not thereby be watered, since the issue would simply represent money already expended by the company. The creation of common stock, for cash surplus absorbed, would, moreover, keep capital and debt in available relative proportions, and hereafter give the corporation higher credit on a broader stock basis.

When the Philadelphia & Erie Railroad shall have increased its gross earnings till they equal those of the Atlantic & Great Western Railway for 1867 (\$5,195,264 73)—a result practicable without doubt in very few years—then the thirty per cent. allotted by lease will amount to \$1,558,579 41, a sum sufficient to discharge seven per cent. interest on \$12,000,000 of debt and divide seven per cent. dividend on \$10,000,000 of stock. This, indeed, is a truth of stimulating tendencies, for it gilds a grand public enterprise with prospect of sure success.—Mining Reg.

Eastern Division Railroad.

There seems to be a determination on the part of a great many Senators and Representatives to force the company that has already built this road from the Missouri river to Pond creek, to either stop right there in the wilderness, or run their road to Denver City, in Colorado. This is short-sighted policy on the part of members of the National Legislature, who act as though they were operating in the interest of the Union Pacific Railroad Company. A short time ago the U. P. R. Company assured the E. D. Company that their road would not in the least interfere with theirs, and that they would aid them in getting help from Congress to build the Eastern Division road; but, now, it seems, they have adopted new tactics, and appear to be working with might and main against the granting of any more aid to complete our railroad. What is the matter now? Are they afraid of opposition, or do they want all the aid the Republic can afford to give, to build their sky-scraping road through the great North American snow-belt? We hope Congress will retrace its steps, view the matter in its true light, obey the mandate of the people and help build our railroad.

It is silly and imbecile in a people as numerous, rich and powerful as is ours to sit down quietly after accomplishing one great work and imagine that that is sufficient for a century, and they will not do it. The people of all the great cities of the East demand the speedy construction of two lines of railroads from the East to the West, and sooner or later, another will have to be built. Then, why dodge the question? Why not grapple the great undertaking now, and put it through? It is not asked for by a section or by a party—all sections and all parties are in favor of building it, speedily, yet Congress holds back. If Congress is not in favor of assisting the company by granting them lands, then give them bonds or money aid of some kind, but for heaven's sake don't retard the development and settling up of the rich and immense country through which the road would pass

for the sake of any company of monopolists. The poor people, the merchants, the farmers and mechanics of the over-crowded East demand its construction, in order that they may come this way for farms, work and trade.

The people of Southern California, New Mexico and Arizona are anxiously praying for its construction, knowing full well that it will bring them immigration, capital, enterprise and protection against Indians, and if it is not built it will cause gloom and despair to settle down upon them thicker and blacker than ever.

The advantage that this road would be to the Government and people have already been so clearly set forth that we need not reiterate them. Suffice it to say that in a few years it would bring such an influx of people into the Territories through which it would pass, that there would be no need of Government maintaining an expensive army in them, to watch Indians, for the settlers would soon take care of them at their own expense.

Every interest of the country demands its construction, and Congress will do nobly, wisely, if it does its duty to the country by encouraging and aiding its projectors, for without Government aid we fear the company, or no other company, will undertake to accomplish the gigantic task of building it at their own expense.—*Arizona Miner*.

Progress of Iowa Railroads.

It is gratifying to the State pride of all Iowans, and it is certainly encouraging to all those who feel an interest in the development of its resources, to witness the vigor with which the system of railroads is being pushed the present year throughout the State. While some of those interested have been making an effort to secure an extra session of the Legislature in order to obtain legislation more favorable to their projects, and that, too, from a State that always has been more liberal in its legislation for the benefit of railroads than any other State in the Union, yet at the same time they are now pushing ahead the new roads faster than they ever have been during any previous period. The Des Moines Valley Road is pushing through from Des Moines up to Boone, to connect with the Northwestern. The Burlington and Missouri Road is stretching away as fast as possible across the State in the strife to reach Council Bluffs and tap the Union Pacific. The Rock Island and Pacific is pushing out west from Des Moines, and is already completed and in operation at least half way to Council Bluffs, at least seventy or eighty miles.

But Northern Iowa is doing the most actual work, and on a larger number of lines, than any other section, and thus really opening up the most country. The Dubuque and Sioux City Road has been graded from Iowa Falls to Fort Dodge, and the contractors are now laying the track at the rate of three-quarters of a mile to a mile each day, and will have the road finished to Webster City, if not to Fort Dodge, before New Year's. At the same time, the road has been extended up the Cedar Valley from Waverly to Charles City, a distance of forty miles, and the cars are running regularly each day. In the Spring the road will be extended on to Austin, Minn., the right of way having been secured already as far as the Minnesota line. At the same time the Eldora Railroad has been built from Ackley to Eldora, and grading is now going on south of the latter place to Marshalltown. Contracts have been let for grading the Mc-

Gregor and Sioux City Road as far west as Charles City. In this we mention none of the projected roads, more or less of which will be speedily pushed on, but only those whose work has been actually done.

We have now another road, one leading directly into Dubuque, on which it is proposed to go to work at once. The Dubuque and McGregor Railroad Company have made arrangements for putting a party of surveyors in the field under charge of Mr. Ainsworth, who will make a survey on the proposed route along the river bank to McGregor. This company was organized last December, and is composed of Platt Smith, J. K. Graves, Governor Merrill and others, who are recognized as men well able to push on such an enterprise. This road will without doubt be pushed through within a short time, and will thus form the only connecting link between New Orleans and St. Paul. It will be an important feeder to Dubuque, and its early completion will add not a little to the growth and prosperity of the town.—*Dubuque Herald*.

The Wide Gauge in Great Britain.

When Mr. Brunel built the Great Western Railway of England with its seven feet gauge, it was with the express purpose of running the trains at then an unexampled speed, and for which he supposed the narrow gauge was not safe. Experience has proved that the wide gauge lines, surrounded as they are with those of the ordinary gauge, can not compete with the latter, or rather they do not work their traffic so as to pay dividends, while the narrow gauge lines can and do. We leave out of question all matters affecting the comparative cost of working the two gauges, and merely state that the wider gauge costs very much larger for construction, both in roadway, superstructure and rolling stock, and when finished, if isolated or surrounded by roads of the narrow gauge, it is not in condition to exchange traffic with its neighbors, except by transshipment or breaking of bulk. This is a serious disadvantage in these times of rapid commercial transactions. But the whole matter is stated in a late report of the managers of the Great Western Railway, although in not so decided terms as the facts justify, a paragraph of which we copy:

"In reference to the important subject of an alteration in the gauge of the line, the directors are happy to announce that they are now prepared to take further steps toward giving effect to the policy which has more than once received the approval of the proprietors, and with this view they propose to discontinue the broad gauge over about 96 miles in length of the lines of the company on which the mixed gauge already exists. It is intended to take up the third rail between Oxford and Wolverhampton (81 miles), and between Basingstoke and the Junction near Reading (15 miles), and to conduct the service of those districts for the future by means of narrow gauge trains only. It is proposed to convert the present broad gauge line between Hereford and Grange Court into narrow gauge, and to lay a third rail within the broad gauge rails between the latter point and Gloucester, and from Gloucester to Standish Junction, so as to form, in connection with the Midland line, a complete through narrow gauge route between Bristol and the narrow gauge lines north and south of Hereford. The value of the materials which by this operation will be released between Oxford and Wolverhampton, and on the Basingstoke Branch, will go far to meet the outlay to be

incurred in the Hereford and Gloucester districts; and if the proprietors approve, the course thus proposed to be taken, their consent will be asked to an additional vote of 15,640l. to complete the work. The directors are satisfied that the expenditure thus incurred will have the effect of improving the working of the line, increasing the traffic thereon, while at the same time the permanent way expenses will be diminished.—*Railway Times*.

The Portland International Commercial Convention.

The Portland "International Commercial Convention" adopted the following resolutions, reported from the Committee on Railways across the Continent:

Resolved, That the interest with which the great nations of China and Japan are regarding the establishment of American steamship lines on the Pacific Ocean, and the construction of trans-continental American railroads, and the earnest desire which they evince to cultivate more intimate commercial relations with the people of this country, make it incumbent upon us to sustain and prosecute with the utmost vigor these national and international enterprises, in order that we may be promptly prepared to avail ourselves of the advantages of our geographical position and of the friendly disposition of the Eastern nations for the extension of our foreign commerce.

Resolved, That in the judgment of this Convention, two Continental railways, in addition to that now under construction by the Omaha route, one upon a line of parallel to the north, and the other upon a line of parallel to the south of that line, should be built with the least possible delay, to meet the requirements of the trade of Asia, already referred to, and to open to settlement and cultivation the territories of the country, and to hasten the development of their agricultural and mineral wealth; and, therefore, this convention respectfully and earnestly urge upon Congress the patriotic duty of granting immediate and adequate aid to perfect our American system by the building of these additional railways.

Resolved, That the projected line from the headwaters of Lake Superior to Puget Sound, which will render available for the purposes of the commerce of the world our great inland seas, which will give communication between Asia and Europe by the shortest distances on both the Pacific and the Atlantic oceans, and by the shortest distance through the United States, gives promise of great advantage to the entire country, as well as the States and Territories through which it is to pass.

Resolved, That this Convention recommends the completion of a line of railroad from Portland to the West, which will connect the Atlantic and the Pacific by the shortest and most practicable route, recognizing at the same time the importance of such proposed and existing routes as connect tidewater with the lakes, or afford valuable additions to the direct lines of transit between the East and the West.

EARNINGS, UNION PACIFIC RAILWAY, E. D.—
This road earned in the month of October the following:—

Goods and Passenger Traffic.....	\$188,406 89
Government Transportation	54,416 88

\$242,823 7

St. Clair Flats—The Ship Canal—Progress of the Work.

[From the Detroit Post.]

The improvement of the St. Clair Flats is now being made after the plans and under the direction of General T. J. Cram, of the United States Corps of Engineers; the deepening of the channel will facilitate the shipment of the produce from the lakes so as to enhance the value of the cereals. The canal will be one and a half miles in length by 300 feet in width, and will be dredged so as to allow vessels drawing 13 feet to pass through at the lowest stage. It is to be so constructed that it can be deepened to admit vessels drawing 18 feet whenever the demands of commerce shall render it necessary. It being furnished with timber dikes, one on each side, running the entire length, which will be filled from the excavations from the channel. The banks, besides, are being made 58 feet wide and 5 feet above the water. It is worthy of notice that, to make the work more durable, General Cram has, with the approbation of the War Department, caused the timbers which form these dikes to be subjected to a new process for its preservation, which will cause it to last at least three times as long as timber usually remains sound having the same exposure, and making a saving to the Government, as stated in General Cram's report to the War Department, of over \$85,000 in 21 years.

This method of creosoting timber, which was lately invented by Professor Seeley, of New York, consists of subjecting the wood to be saturated to a temperature of about 230 degrees, while in a bath of creosote oil, for a sufficient time to expel all the moisture, and to coagulate the albuminous matters of the wood. When the pores are thus freed from the water, and contain only steam, a cold bath is substituted, so as to reduce the temperature from 230 to 65 or 70 degrees, by means of which change the steam in the pores of the wood is condensed, and a vacuum formed, into which the oil is forced by atmospheric pressure.

The process has all the advantages of the method which has been in use in England and on the Continent for many years, (and experience has demonstrated that creosoted timber is still sound after being in use more than 22 years), and is much more simple in its application, and consequently more economical and expeditious than the English process.

Among the advantages claimed is the very important one that green wood can be treated as successfully as dry. The apparatus for the creosoting, which has already been shipped to the Flats and is now being erected on the dikes of the canal, was built in this city by John Brennan, and consists of a cylinder 45 feet long and 8 feet diameter, with a steam coil in the bottom and a moveable head. The cylinder rests upon substantial timbers, and when the head is removed the lumber is run into the tank upon trucks. In addition there are two receiving tanks for oil, each 15 feet in diameter and 6 feet high, with engine and boiler, connecting pipe, pumps, etc.

It is expected that this process will be applied to the timber to be used in the Government works about to be begun at Toledo. Mr. Pelton has also similar works now in successful operation at Chicago for treating railroad ties and dock timber.

PARTIAL DESTRUCTION OF THE BESSEMER STEEL-WORKS AT TROY, N. Y.—The mill was three hundred and fifty feet long. The fire caught at about the center of the roof and spread both ways. The central portion, in which was the machinery for the manufacture of the steel, consisting of two five-ton and one two ton "converters," with hydraulic cranes and other apparatus, is a total loss so far, at least, as the building is concerned, but most of the machinery, which, of course, was of the heaviest description, was saved. Two of the converters are probably uninjured, as were the molds, but two of the hydraulic cranes were broken. The southern portion of the mill consisted of a wooden structure, in which was an immense steam hammer. The building was destroyed, but the valuable hammer was wholly uninjured. Fortunately there was a slight breeze from the west, and this kept the flames from reaching the engine building, located a short distance west of the main structure.

On the morning after the fire the mill presented the appearance of a mass of ruins, but the comparatively perfect manner in which most of the machinery will be secured gives encouragement to the hope that the loss will not be so serious as might naturally be expected. The original cost of the mill was about \$250,000; but it is not expected that the loss will exceed \$75,000, and it may not reach that sum. The building is the main thing to be replaced. Messrs. Griswold and Chester were early on the ground the next morning arranging plans for the rebuilding of the structure. The loss is greatest in respect of the suspension of the works. The company were working upon a large contract for the manufacture of steel rails, and the Bessemer works were kept running night and day to supply the new rolling-mill of Griswold & Co. with material for the rails. It is hoped that at least one small "converter" can be set up and put in running order in the course of two or three weeks. A temporary roof for this "converter" was commenced immediately. The loss in the delay caused by the fire can not be less than \$50,000, independent of the direct loss upon the building and machinery. So secure was the feeling of Mr. Griswold in regard to fire from the precautions adopted against it, and especially on account of the hydraulic pump in the building, that recently he caused the amount of insurance upon the mill to be reduced \$20,000. To an unfortunate accident to this pump may now be traced the destruction of the mill. The total amount of insurance upon it was only \$33,000.—*Troy Times*, Oct. 21.

THE ERIE THIRD RAIL.—The *Buffalo Commercial Advertiser* contains the following reference to the proposed extension of the Erie Railway from that City to Niagara Falls, and the laying of a third rail between New York and the western terminus of the Erie line: Parties in the interest of the Erie Railway Company are surveying a line of railway between their track in that city and Niagara Falls, and we understand that the work of building the line is to be commenced immediately, the probability being that it will be opened for business early next summer. This is a very important piece of work, not only for the Erie Company, but for the Great Western Railway of Canada and for Buffalo. The Erie Railway Company have a still more important project in view, and one which we have reason to believe, is to be consum-

mated at an early day. This is nothing less than the laying of a third rail the entire length of their track between New York and Buffalo. This immense undertaking has passed beyond the point of consideration, we are informed; the work has been resolved on and the iron contracted for. The object, of course, is to secure for the Erie Railway an unbroken narrow gauge route from New York to Chicago, both by the Buffalo and South Shore route, and by the Canada and North Shore route.

ANOTHER LOSS OF LIFE FROM A BROKEN RAIL.—The breaking of rails on the different railways of the country seems to have become a perennial source of danger to life and limb, another instance having within the past few days been added to the list, already of fearful length, of deadly accidents from this cause. The recent hurling of cars from the track on the Hudson River Railroad, and the resulting loss of life, happened from the breakage of an iron rail, of which it is said that "it was snapped in two like a corn-cob, and was not bent, split or splintered a particle, with the exception of a little strip three inches long and weighing about two ounces, which came out right over the fracture. A solid fragment of iron weighing about a pound had broken out from underneath, as if blown by a charge of powder. Where the iron was broken the surface was bright as silver, and free from any flaw. The rail had been down about three years, and should wear at least nine years. The break occurred close to one of the ties, or cross pieces, and the broken end facing the approaching train was battered by the wheels striking against it."

The peculiar fracture of the rail, and the apparent impossibility of detecting any flaw therein beforehand, will be likely to somewhat strengthen the growing feeling against common rails, and in favor of steel ones; and, at the same time, it should stimulate the efforts of inventors to produce some means by which such terrible results from such slight causes may be avoided.—*Artisan*.

The Monroe Monitor says of the Toledo, Monroe and Saginaw Railroad: "Some one hundred and fifty men are employed on the line between Monroe and Holly, and of this number a large force is now in Monroe County approaching the city rapidly, while the extension of the road to Toledo is undergoing a preliminary survey of the route, by men of means sufficient to secure its completion; thus forming almost an air-line road from Cincinnati to the Saginaw Valley."

There is renewed activity in railroad matters at Kalamazoo. While Ransom Gardner is advertising for 500 additional railroad hands to work on the road between Otsego, Allegan and Grand Rapids, the Grand Rapids and Indiana Railroad Company are busy laying the road-bed through that village, which they have nearly completed. Both roads are on a race for Grand Rapids.

RAILROAD PROGRESS.—The head Chinaman here informs us that Holliday & Co. have sent here for two hundred Chinamen to commence grading on the O. C. R. R., East Side, near Eugene City. This company seems determined to push matters, and if the cash holds out there will soon be a railroad from Portland to Eugene.—*Oregon Sentinel*.

The annual meeting of the stockholders of the Western Union Railroad Company was held the 14th day of October, 1868, at Racine, Wis. The Directors for the ensuing year are as follows: Richard Irvin, S. P. Nash, R. G. Ralston, Jacob S. Wetmore, New York; Geo. A. Thomson, Henry T. Fuller, John Wilson, Darwin Andrews, Racine; Edward P. Barton, Freeport; Wm. Shannon, E. Northey, Shannon; R. W. Dame, Lanark; H. A. Mills, Mt. Carrott.

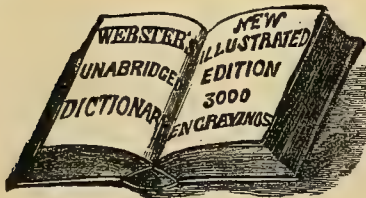
At a meeting of the new Board of Directors, the officers of the previous year were unanimously elected, consisting of G. A. Thomson, President; H. T. Fuller, Vice-President; W. V. Baker, Secretary and Treasurer.

Receipts of the Western Union Railroad Company for the week ending November 7:

	1868.	1867.	Inc.	Dec.
Freight.....	\$8 935 58	\$17 052 67	.....	\$8,117 09
Passengers	3,904 10	3,573 83	\$330 27	.....
Express and Tel.	350 00	570 00	.....	220 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$13,564 68	\$21,571 50	\$330 27	\$8,337 09

Receipts from January 1, to November 7:

1868.....	\$675,921 01
1867.....	663,3 8 78
Increase.....	\$13,542 23



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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

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SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
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2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

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When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race,

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H.&D.&M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

MITH, Pres't, C.&I.C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLES, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indiana; Aug. 2, 1867.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same times as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
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NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave	Cincinnati.....	6.15am.....	7.10pm
"	Dayton.....	8.35 ".....	9.30 "
Arrive	West Salem.....	1.50pm.....	4.53am
"	Leavittsburg.....	4.55 ".....	7.35 "
"	Meadville.....	7.35 ".....	11.10 "
"	Susquehanna.....	7.48am.....	11.29pm
"	Paterson.....	2.25pm.....	6.03am
"	New York.....	3.15 ".....	7.00 "
"	Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the (mi) distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 8:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats, or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

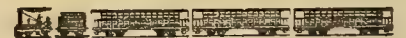
2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday, June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

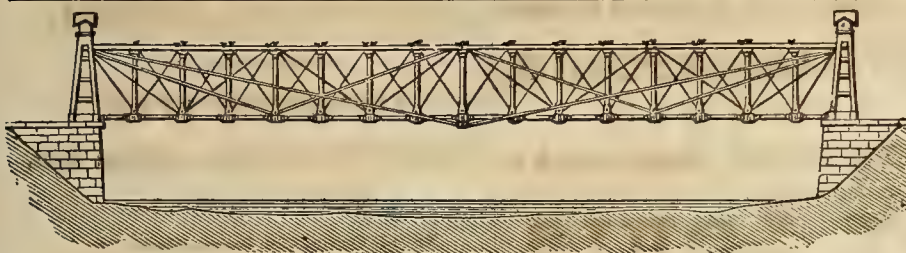
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent.

F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pairs of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish Tread Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

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AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS.

FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI, 7 40 a.m.	10 10 p.m.	4 00 p.m.	
Arrive SEYMOUR, 12 00 m.	2 00 a.m.	8 10 "	
Leave " 12 20 p.m.	2 10 "		
Arrive VINCENNES, 5 15 "	6 35 "		
Leave " 5 20 "	6 40 "		
Arrive ODIN, 9 35 "	10 30 "		
Leave " 9 45 "	10 40 "	6 30 a.m.	
" SANDOVAL, 9 55 "	10 50 "	6 40 "	
Arrive ST. LOUIS, 1 00 a.m.	1 30 p.m.	9 40 "	
Trains Arr. at Cin'tl,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE, General Superintendent.**Best Route to St. Louis and Chicago****INDIANAPOLIS, CINCINNATI AND LAFAYETTE RAILROAD**

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West, North west and South-west.**5 THROUGH TRAINS DAILY,**
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	9 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.16 pm	11.30 am
St. Louis Lightning Express, Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.40 am	8.35 am
Connorsville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

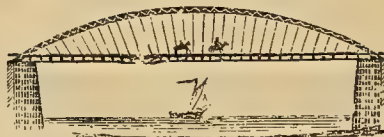
Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.**MOSELEY'S WROUGHT IRON ARCH BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, Constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works
June 9**THE SCHENECTADY LOCOMOTIVE WORKS,**

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.**PASCAL IRON WORKS.**

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 30 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
BY G. MORRIS.**Philadelphia, Wilmington & Baltimore****RAILROAD!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave all time for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON, } Editors

CINCINNATI:

THURSDAY, NOVEMBER 19, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express.....	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express	7:20 A. M.	7:05 P. M.	
Night Express	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION.			
Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.	
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.	
INDIANAPOLIS, CINCINNATI AND LAFAYETTE.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Oakose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express.....	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

Cincinnati and its Suburbs—their Extension.

We said in our last, that it was in vain for Cincinnati any longer to keep up with the growth of Western cities, unless she availed herself of her natural advantages, by extending her communications. This is obvious, and we shall say no more upon it; but, there are some things to be done, or she will not even appear to be what she really is. In the recent Presidential election, Chicago cast about 5,000 more votes than Cincinnati; which at the ratio of voting in the Western towns, represents 35,000 people; so that Chicago has now 35,000 more people than Cincinnati has, within the corporate limits; but, there is this difference between the two places. Chicago is all *within* the corporate limits; and one-third of Cincinnati is *without* those limits. At the late election there were cast votes enough in the *immediate* suburbs of Cincinnati to represent 50,000 people; and over the River, there are more than 30,000 in addition. Since the bridge is built, and the Street car lines have been extended over the river and up the hills, this suburb population is increasing at a very rapid rate. It is very evident, that if this process is to continue, Cincinnati will cease to appear in the census as more than a fraction of its real self. There are already 80,000 people really belonging to Cincinnati, who are not enumerated as such. It is curious to see how London has grown up in this way. The real London is made up of London, Westminster, Southwark, Tower Hamlets, and several other sub-cities, all of which make up a population of about 3,000,000 people; but London within the walls counts something like 120,000. But, in the space of London proper, is done nearly all the *business* of that immense metropolis. We saw an article describing an attempt to find how many people lived in London (within the walls) who did not sleep there at night, and therefore did not go into the census; for the census took the people at midnight. The result was, that about 1,500,000 persons did business in the day constantly, where the census found only an 120,000! If Cincinnati keeps on, in twenty years, a similar state of things may be found here; for always the great mass of business will be done on the lower plains of the city. But, where will the people be in twenty years hence? More than half of them in what are now the suburbs.

We saw recently a petition from the people of the suburbs, asking annexation to the city. This would be wise for both parties. The people of the suburbs would find the value of their property much enhanced by being within the city proper, and would also be greatly benefited by the extension of lamps and water-pipes; while on the other hand, the city would extend the basis of taxation. Both parties would be the gainers by it. Some

years since Philadelphia found itself growing largely without the corporate limits, and by one decisive stroke of policy, took the whole county of Philadelphia in, the county being small, and really full of city suburbs. The result was beneficial. Philadelphia now has credit for its real importance and value; and the suburbs have the benefit of police regulations, and grow more rapidly. The city of Boston is another example. Boston on the peninsula is scarcely more than half the real Boston. There is Roxbury, Charlestown, Cambridge, Cambridge-port, East Boston, etc., etc. Two or three years since, Roxbury was incorporated with Boston, and at the next census Boston will appear wonderfully improved. All the other adjacent towns ought to be added, and then people would be surprised to find Boston a great city, as it really is. Probably Boston with all its suburbs will be found almost 300,000. The county of Hamilton is too large, and much of it too rural to embrace in a city. The true limits of the city of Cincinnati should be something like these; the Little Miami on the East; the Northern line of Mill Creek and Green Townships, and the Western line of Green and Delhi. This would bring in the townships of Columbia, Spencer, Mill Creek, Green, Delhi, and Storrs. It would add 50,000 to the population of the city, and maintain its rank among the cities.

This brings us to the *construction* of the city; that is, of its buildings. In early times, and in some degree now, the buildings were erected of wood, brick, and stone; at first, almost wholly of wood. But, as time rolled on the wood declined, and the brick increased; but now, what is called the "Stone Fronts," have greatly increased. These "stone fronts" are composed of the "Waverly" or sandstone found in the region of the Scioto, and especially on the Ohio river, near Portsmouth. Eventually, Cincinnati ornamented with this stone, and climbing on and over the hills, will be by far the most beautiful city on the continent. Nothing now can equal the scenery of its suburbs.

The following is a table of the composition of buildings in Cincinnati, at different periods down to 1840. Since that we have no means of knowing.

	Wood.	Brick.	Stone.
1815.....	800	250	20
1819.....	1,460	392	40
1826.....	1,541	936	18
1840.....	3,000	3,700	100

In 1819, the *density* of population was only 5 persons to 1 house. In 1826, it was $6\frac{1}{2}$ to 1. In 1840, it was nearly 7 to 1. In the last ten years, there has been comparatively little building, but the population has *largely* increased; so that we think the ratio of people to houses must now be quite 8 to 1. The removal of population to the hills and suburbs will probably diminish the *density* of habitation. This brings to another point

The increasing growth of the suburbs demand that the *Street Railroad* should be extended out as far as possible. In New York some of the cars run full eight miles; and soon it will be necessary to run the cars that distance on some of the lines. The up and down river lines already together make eight miles. Cincinnati on the river extends more than eight miles; and it will soon be at least five miles back, which is the distance of Cumminsville. On the East Walnut Hills road, cars should run to Madisonville; on the Harrison Avenue, to Cheviot. In one word, there should be Street Railroad lines run through the extent of the suburbs. We say suburbs; but, in reality, they will be the best part of the city. But, are we not too fast? Where are the people to fill up this vast area? Mr. Jones and Mr. Smith hold many acres of land in those regions; and we say to Mr. Jones and Mr. Smith, if you want to sell those acres in town lots, you must finish the Southern Railroad! "Harping on my Daughter!" Yes, Mr. Jones, it is my daughter; but, *you*, Mr. Jones, are much more interested in her than I am. So, Mr. Jones, attend to her, cultivate her, and bring her with the dowry of the South, into the lap of this beautiful city.

Pure Water—Health.

The attention of "the citizens of Cincinnati" has for some time been attracted, officially and otherwise, not only to the inadequacy, but the impurity, of our present supply of water. At the recent *christening* of Eden Park, much was said upon the subject of inadequacy; it was officially stated that we had only "about a four or five-hours supply of water on hand." This certainly ought to be a sufficient argument to convict the most obtuse of the necessity for a reservoir of greater capacity—it is the strongest possible reason for the speedy completion of the Garden of Eden reservoir.

This, however, does not affect the source from whence the supply is obtained—it will still remain the same. Of its foulness enough was already known; indeed, it was a work of supererogation for the Board of Health, although really interesting as a matter of statistics, to count and give to the public a correct list of the "spice boxes," together with other "flavoring extracts," in the Third and Seventeenth Wards, that each do their share toward giving "tone" to the water which we all have to drink.

In the officially reported proceedings, published in the *Gazette*, on the 11th, we find the following:

"The question of controlling the construction and draining of privy vaults, &c., excited much discussion. Members of the Board had statistics in regard to the drainage of the eastern part of the city, which they propose to

remedy at once. The facts are these, that the river above the Water Works is receiving the drainage of six hundred and six privy vaults, twenty-eight stables and one hundred and twenty-six sewers."

What kind of stomachs have we got, that we tolerate it? The above statistics of the Board of Health most assuredly gives great pungency to the recommendation of his Honor, Mayor Wiltach, that if the city would furnish "pure water" from "clean fountains," located conveniently in different parts of the city, that "lager beer saloons would receive much less patronage than they do at present."

In view of providing a remedy, the following was presented to the Board of Health by Mr. Simpkinson:

"Resolved, That all privy vaults hereafter built shall be of stone or of brick, well cemented, and made water-tight in every respect, except where the bottom of the vaults is of gravel or sand: in this case the bottom may not be cemented, but all vaults east of the Water Works, in the Third and Seventeenth Wards, must be made water-tight at the bottom as well as the sides, to prevent its leaking into the river.

"Adopted."

We will suppose, for the moment, that the Board of Health, in good faith, carry out the above resolution, as to all vaults *hereafter* built! We would like to know what is to be done with the *six hundred and six* now in existence, whose drainage and filth is daily mixed with the *staple beverage* of the city? This is, of course, independent of the *twenty eight stables and one hundred and twenty-six sewers*!

Pure water! How is it to be obtained from such a source? It would be equally proper to speak of the *high moral tone* of the people of Sodom and Gomorah, as to talk of the purity of water so recently mixed with so many vile abominations.

The true remedy we have pointed out before, viz: to go above the city for the source of supply, and construct capacious reservoirs on the Kentucky hills, that will hold not less than a three or six months' supply, giving ample time for sedimentation; the water would then be the *purest* within the reach of Cincinnati.

BLUE RIDGE RAILROAD.—We learn by a special telegram to the *Gazette*, from Washington City, upon the authority of U. S. Senator, FRED. A. SAWYER, of South Carolina, that the party of Gov. SCOTT, of South Carolina, who had been "in New York for several weeks looking after money matters, and were able to make entirely satisfactory arrangements for their State." One of the leading objects of Gov. S. was to arrange for the money to construct the Blue Ridge Railroad, and of this the telegram says:

"He (Senator Sawyer) thinks the prospect of obtaining aid for railroads and other internal improvements much better than it was months ago."

The Indian Problem.

"Cavalry Sheridan is going to perform a surgical operation on the Indians. Cut away, Phil."—*Cin. Times*, Nov. 18, 1868.

The above is a wonderful change of sentiment, on the part of our neighbor *Times*. It is not two years ago (January, 1867) that the *Times* said that "the savages of our country have been under provocation all the time—provocation that has been a scandal to our moral pretensions." Again, in the same article the *Times* says: "It is for civilization and christianity to set a good example to the savages, before getting too malicious towards them." Also, that "the whites have been guilty of more sin against the Indians, and, also, against the poor of their own race, than the Indians have been guilty of towards the whites." To make their position stronger in condemning our advocacy of the construction of trans-continental railroads, the *Times* further adds: "And yet we believe the editor of the *RECORD* is a very pious man!" And also says, "We must beg leave to say that we doubt the virtue and the Christianity of that kind of 'progress.'"

Now, we have no other object in view in making the above quotations, than to chronicle the "progress" of ideas and apparent "hopeful conversion." We heartily concur in the request of the *Times* to General Sheridan to "cut away," seeing that, according to the *converted ideas* of the *Times*, the *cutting* has to be done. "Cut away," and be sure that the "root of the cancer is cut out."

This, however, was not our way of doing it; and we think our way the most economical and humanitarian.

We had enumerated, in our paper of January 17, 1867, some of the "noble deeds" of those "gentle savages"—among others, the *innocent* plan (afterwards known to have been made a week beforehand) to murder our own brother, William Wrightson, and Gilbert L. Hopkins, for the sole purpose of obtaining their horses; the murder of Herman Ehrenburg, (one of the most innocent men on the face of the earth, of cultivated mind, and cosmopolitan experience, a patriot from his cradle, and one of the *very few* who stood up, but escaped the terrible massacre, in which perished Colonel Fannin and his comrades,) while asleep, for his horse; and of George W. Leihy, the Government Indian Agent, who, after having distributed the *Government presents* among the "untutored sons of the forest," was killed and his *heart cut out*, for no other reason that can be imagined, than to preserve it as a "specimen of benevolence." It was in this article that we asserted that "half a dozen railroads to the Pacific will soon traverse the continent, and the snort of the iron horse will fright (not *freight*, as the *Times* published it) him to the hunting-ground beyond the setting sun."

We do not hesitate to say that if aid had

been given to the Kansas Pacific Railroad, to enable it to continue its construction on to Denver, that the present Indian difficulties would not have occurred, and the cost of the construction of the railroad would have been less than the extra expenses that have been already incurred in the "surgical operation" under General Sheridan. We should then have had a railroad, *without an increase of debt*, (as it has been clearly demonstrated that the road will pay its bonds) instead of a drain on the Treasury for military expenditures, the loss of thousands of worthy men, and the gain of but a *very few* sent to the "hunting-ground of their fathers."

We further remark that we still like our way the best, and say push on the great civilizers of the age—the continental railroads—humanity, even to the Indian, demands it. But as the other has now to be done, we will "hold up the hands" of the *Times*, without inquiring whether he is a "very pious man" or not, and cry "amen!" "Cut away, Phil."

Southern Railroad Connections.

[From the Cincinnati Commercial]

The following very interesting letter from Selma, Alabama, is from a gentleman well posted in the wants, necessities and resources of the South, and than whom no one is better able to give correct information to the citizens of Cincinnati as to the value of Southern trade, and the proper means of securing it. The letter will attract attention, and its recommendations are worthy of the most serious consideration:

SELMA, ALABAMA, November 14, 1868.

Three years have sped since the country returned to the pursuits of peace, and the face of the earth begins once more to bear the appearance of plenty. The vestiges of war are fast disappearing throughout the South, and, despite the efforts of politicians, whose bread is strife, and whose life is turmoil, the people are quietly reconstructing themselves. Blackened, smoldering homes, warehouses and workshops have been mostly rebuilt; plantation fences are renewed; "the sword has become the plow-share, and the spear the pruning-hook"; the fields are whitening with cotton, or growing gray with ripening corn. The crops of last year added \$250,000,000 to the material wealth of the South; the present crop will add \$350,000,000 more. With food in abundance, what will be done with this accumulation of money? Heretofore, negroes and land absorbed the entire available income of the planter. There are now no slaves to be bought, and lands are too abundant for the population. Hence, the accumulation of money will find employments in railroads, in manufacturing, in building and in trade.

Heretofore it was almost the universal policy of the planter to cultivate as much land as possible to the hand. Now he finds a little land well tilled to be more productive of profitable returns. No lands on the continent repay the farmer better for judicious culture; no part of the world is better supplied with native or local manures. Gypsum, lime and marl exist in inexhaustible quantities. The climate is pleasant and healthful. Water is

abundant and good. Coal and iron, copper and lead are abundant. Timber and lumber are inexhaustible. Building stone, marble and fire clay, in the greatest profusion, are scattered over broad extents of country. Water-power abounds throughout the entire mountain section. With all these inducements to the pursuits of peace, is it not more than probable that the accumulating capital of the South will seek investment in some or all of these interests.

Railroads for the present absorb more of the attention of Southern capitalists than other enterprises, for the reasons, first, that they are better understood; and second, that they are a more immediate want.

The war demonstrated that railroads possessed more vitality than any other property. Destroy them as they might, and did, a few hours or days at most sufficed to raise them, Phoenix-like, from their ashes, as young and vigorous as ever. At the close of the war, almost the first effort at reconstruction was to rebuild and re-equip the railroads of the South. They were the arteries through which the life-blood of the country must flow. In the hour of prosperity they are a means and help; in adversity an indispensable necessity. These facts are felt rather than known by Southern capitalists, and are being acted on without a why or wherefore. The first year after the war was occupied in rebuilding roads which had been destroyed, or were worn out, so far as roads can be worn out. But very few new enterprises were projected, none commenced.

The first successful effort to construct new lines has been the extension of the old Alabama and Tennessee River Railroad to Rome, Georgia, one hundred and ninety-eight miles, at which point connection is made, by all rail, to seaboard and interior cities from Florida to Maine, and thence west to the Mississippi.

Under the new title of the Selma, Rome and Dalton Railroad, this line extends from the center of the best cotton district of the South through and near the immense coal and iron fields of Alabama and Georgia to Rome, which is destined to become the Pittsburgh of the South, and will thence be extended to Dalton, where closer connection will be made with the roads of East Tennessee.

Selma is a city of 12,000 inhabitants, situated on the Alabama river, at the virtual head of navigation. It is in the center of the great cretaceous formation extending from Eastern Mississippi across Central Alabama and Southern Georgia, and is the virtual center (commercially) of one-third of the cotton produced in Alabama. This city suffered nothing by the war except from the Confederates, until just before its close, when General Wilson, of the Federal army, swooped down upon it, and in a few hours left the greater portion of it a smoking ruin. General Wilson left a wide path of desolation behind him wherever he was opposed, and in some instances whether opposed or not. For the present generation all events will be dated from the "Wilson raid," in this section.

The war ended the people began at once to rebuild their beautiful city, and until the failure of crops in 1865 and 1866 compelled the money of the country to seek food rather than houses or raiment, there was no place in the South built up more rapidly or substantially.

Two seasons of average crops have again set the mason's trowel and carpenter's hammer at work, and another season will produce many new and spacious edifices.

Two railroads, with several branch lines, in all about 300 miles, have been constructed.

Two others, about 150 miles, are in progress, and others are projected, all centering here, and diverging to every point of the compass. Situated on an immense plain, the city has ample room to expand, and what with commerce in cotton, the cereals and mineral products, and in manufactures, there is no conceivable limit to its extension. There are few, if any, cities containing a greater proportion of intelligent, large-minded and honorable merchants. Failures are very uncommon, and public enterprises are liberally aided and fostered.

Along the line of the Selma, Rome and Dalton Railroad are many towns, rivers and places which will sound familiar to the old admirers of General Andrew Jackson. At Talladega, 110 miles from Selma, are buried some of the brave Tennessee volunteers, who lost their lives fighting the Creeks, at that home of their nation. The Coosa and Tallapoosa, the Oatchie and Tallassehatchie are all memorable as the scenes of some of Old Hickory's victories. The hundred valleys of this region are healthful and productive. In the summer the heat seldom exceeds 85° in the shade, and in winter ice seldom forms more than an inch in thickness. Springs are abundant and in great variety. The hills bordering the valleys are adapted to fruits, and in their bowels contain marble, slate, sandstone, limestone, copper ore, galena, iron ore and semi-bituminous coal. The iron ore and coal are in the greatest possible abundance, often in juxtaposition, always within easy access. The opinion has recently been expressed by some of the most practical iron-makers in Pennsylvania, that iron can be produced in Alabama at a less cost per ton than in any part of the continent. The quality is certainly unsurpassed, and the variety of ores certainly leaves very little for the furnace man to desire.

Before and during the war several furnaces and rolling mills were put in operation. These were destroyed by General Wilson, and but three have been partially rebuilt. The improving condition of the agriculturists of the South is creating a demand for iron, and capitalists from the North are investing in property containing ore and coal. The Selma, Rome and Dalton Railroad passes through the most promising deposits.

The citizens of Cincinnati are more interested in the development of this section than they are aware. Let them extend the Kentucky Central to Knoxville or Chattanooga, and they can open up a direct trade with this entire region. Goods and provisions may be loaded in cars at Cincinnati and delivered at any point on the coast from Norfolk to New Orleans, or to any point on railroads throughout every State south of the Ohio and James and east of the Mississippi, without break of bulk. This is now done daily from Louisville and Hickman, Kentucky. Will the Queen City stand idly by and see her neighbors secure the fruits of this trade and make no effort to divide the business with them? One of your most liberal and enterprising citizens has supplied the means to complete the Selma, Rome and Dalton Railroad. Cincinnati can reach forth her hand and grasp ours by one single effort of the will.

Where are your Clements, your L'Hommedieus, your Lords, your Straders, your Worthingtons?

Is there no profit in the whole Israel of the Queen City? Have you no Sampson to go forth to battle for you? Is there no David among you with courage sufficient to venture across the brook to fight for the honor and

prosperity of your city? I know it to be otherwise! You have the capital, the brains, the enterprise. Let the Queen City put forth her strength and the work is accomplished.

Through this city you shall reach the Gulf at Pensacola, Mobile and New Orleans. Through this and other connections you may command the entire Gulf and South-Atlantic ports.

The dream of the early fathers of your city is now nearly accomplished. It is for their sons to see and enjoy the full fruition of their hopes, unless they are most recreant sons of most noble sires.

The Northern Railroad of Michigan.

Important meeting of citizens and discussion of railway affairs. Action necessary to secure connection with the Northern Pacific Railroad.

The meeting of citizens interested in the project of the proposed railroad line, to be called the "Northern Railroad of Michigan," assembled in the Council Room, at the City Hall, yesterday afternoon at half-past three o'clock.

The meeting was called to order by Wm. H. Craig, Esq., who nominated his Honor Mayor W. W. Wheaton, as Chairman, and E. W. Meddaugh, Secretary.

Mr. Craig first addressed the meeting and referred to the communication made to the Board of Trade some six months ago by the inhabitants along the line of the proposed railroad from Detroit to Bay City, through Oakland, Macomb and Tuscola counties, the action upon which is familiar to the readers of THE FREE PRESS. Stock was taken sufficient for the perfection of an organization, and officers were elected, and steps have been taken to see what amount of stock will be taken in the various localities interested. He was present at a meeting held on the line of the road, and it was asked what proportion of the stock Detroit would take, and he had promised some \$200,000.

The distance is 101 miles from Detroit to Bay City, and it will cost about \$600,000 to secure the right of way, do the grading, build bridges and prepare the road completely for the rails and the rolling stock. It was now generally understood that the reason why the road was not under way was because no steps had been taken in this city to that end, and this meeting had been called in order to discuss and come to some conclusion in the matter. Mr. Craig, from a map before him, pointed out the various proposed roads, and said that right in the midst of our own territory there are more roads building to take trade and commerce away from Detroit than there were to bring trade to her doors. Indeed, he said, a complete network of roads is projected, the most of them leading directly past and ignoring the existence of the city altogether.

We are perhaps, excusable, he added, for not moving in these matters, since nature has done so much for us. For one hundred years the entire trade of Detroit was carried on 'e upon her great river and the lakes, or upon the backs of her voyageurs by land, and her people seem to think railroads were of no account. In the case of Chicago, that city is owned by live business men, who saw the necessity of putting forth some effort to bring business and prosperity, since she had no particular natural advantages, and the result is manifest. The speaker referred to the

difference in the amount of grain received by the two cities and drew conclusions pointing to the necessity of immediate action on the part of this Detroit, saying: The fact is we want to wake up to the importance of railroads, or else buy a cedar swamp, go to splitting rails and fence in the city.

Mr. Craig then submitted the following:

Whereas, It has been demonstrated that commercial and material prosperity of cities and towns in the surrounding and productive country through the medium of railroads, that it is the products of the soil that form the basis of commercial wealth and prosperity; that however bountiful nature may have been in providing a great highway, by water, to our mart, the prosperity of Detroit demands more close relations with the country through the medium of railroads; the early construction of the Northern Michigan Railroad, by way of Bay City, to the Straits of Mackinaw, thence through the mineral range of Lake Superior, and connecting with the Northern Pacific Railroad, is a work demanded by the best interests of every citizen and tax payer of Detroit; therefore,

Resolved, That we will render such seasonable aid for its early construction as its requirements may demand, and that we will subscribe to the capital stock of said road between Detroit and Bay City, the amount of \$200,000, and donate for that purpose the sum of not less than one per cent on our assessed valuation, when a law for that purpose shall be enacted; *provided*, however, that Bay City and points between shall subscribe to said capital stock \$400,000, and make a like liberal donation.

Hon. Jacob M. Howard addressed the meeting upon the subject of the Northern Pacific Railroad, which has its terminus at the west end of Lake Superior. He said: In 1864 Congress chartered the Northern Pacific Railroad Company, which exists, therefore, of course, solely by act of Congress; this was two years later than the charter of the Union Pacific Railroad. To this latter road was granted a cash subsidy of \$16,000 per mile for one portion, and \$32,000, for another portion, and for the Mountain Crest region \$48,000 per mile. In addition to this subsidy a land grant of alternate sections on each side of the road was made. This road has cost from Omaha to the base of the Rocky Mountains an average of \$41,000 per mile.

The Northern Pacific Railroad Company in their representations to Congress said they wanted no cash subsidy, but only the land grant, which latter they received at the rate of every alternate section of land for twenty miles on each side of the road, from Lake Superior to Puget's Sound on the Pacific. At first very little was done, but for the last two years the company have had their exploring parties engaged in prospecting for the line of the route under the direction of their Chief Engineer, Johnson, a man of great energy and ability, and from whose reports it appears that this is much the easiest and most economical route. The distance from the western extremity of Lake Superior to Puget's Sound is not quite 1,700 miles. The country through which the road will pass abounds in good timber of many kinds and there is plenty of material almost uninterruptedly through the entire distance for the construction of the road. There are navigable streams crossing and recrossing the entire line except in a few intervals, with extensive deposits of iron and other minerals which will be of very great value; also quarries of stone of excellent

quality. The region of country is of excellent soil generally, and will soon be filled with inhabitants. The gradients over which this road will pass are very easy, and there is really no comparison with the Omaha branch in this respect. On the latter road, in the Sierra Nevadas, there are grades of 125 to 130 feet per mile, while the track is often compelled to run in very short curves, and the summit is passed at an elevation of 7,000 feet, or within 1,000 feet of the region of perpetual ice.

On the Northern road, there is no point according to Chief Engineer Johnson higher than 4,000 feet. At Puget's Sound, the western terminus, is one of the best harbors in the world. Suppose you want to go to Shanghai from Detroit or Chicago, by the Northern route the distance is shorter by at least 500 miles than by the Union Pacific Railroad by way of San Francisco.

There is another project on foot, and a subsidy for what is known as the Kansas branch of the Union Pacific Railway. They want the same subsidy as the Union Pacific Railway proper. Mr. Howard said he had no doubt but for the urgency with which the friends of the southern route pushed their claims he might have secured a subsidy for the northern route. The Southern road is a bad project. It leads through a country of which at least 500 miles is a desert, and there is not in the whole distance a navigable river except the Colorado, which is crossed by this line. He was much in favor of the northern route for these cogent reasons. He referred to the present project of the Northern Railroad of Michigan, but thought it feasible only in case the Northern Pacific was put through, with which this road is to connect. The main thing is to get the Northern Pacific Railway built. "*Hic labor hic opus*"

H. H. Emmons, Esq., then proceeded to give an outline of the action taken by himself as counsel for the organization of a company to connect the western extremity of Lake Superior with the East by the most direct route. He said that within ten days he had received letters upon this subject from heavy property owners in the mineral regions along the south shore of Lake Superior, among whom were Gen. Walbridge, of New York; Gov. Magoffin, of Kentucky; Gov. Orr, of South Carolina, and others.

In this prospect, however, everything depends upon the Northern Pacific Railroad. If this succeeds, gentlemen of great wealth have signified their willingness and intention to put the other through without delay. With reference to the railroad to the Pacific, he said the northern route is the only one which ever ought to have received government aid, and the only one which should be built, for many reasons. The altitude is not only 3,000 feet less, but it is necessary to keep that altitude less than one-fifth of the distance required on the Union Pacific route, to say nothing of the heavy grades and the heavy expense of roofing over the latter road for forty miles on the Nevada Mountains, to protect the road from the snow. He hoped that Congress would see to it that the Northern Pacific received a subsidy. It was a project bound to be put through, and would be done by slow moves even without government aid.

Mr. Howard said he had had formerly some doubts as to the feasibility of crossing the Straits of Mackinaw with railroad trains either in winter or summer, but he had been informed by the engineer, Mr. Johnson, there is no difficulty at all in the way. In those the water is usually quiet; there is scarcely any

current at any time of the year; indeed, less than at any other point on the whole chain of the lakes. This project is one which the people of Michigan ought to take a deep and especial interest, and he trusted they would do so. He should not vote a subsidy to the Kansas project unless the Northern road received a like grant, which he had heretofore believed was a burden too great for the United States Government and Treasury to bear.

Mr. Craig said the connections with the Northern Pacific Railway eastward will go either by way of Chicago, or across the Sault St. Marie through Canada, unless steps were taken to meet the project by a line across the Straits of Mackinaw, and the question is whether we shall wait till the connection is made in another direction before making an effort to secure it for ourselves. He was satisfied that the local traffic of the road would pay well on the investment. It is twelve miles nearer than by the present route to Saginaw and Bay City, the latter being at the head of navigation, and a city of great and growing trade and commerce.

Mr. Lyman Beecher referred to the early history of the Michigan Central Railroad, stating that at the time of its purchase from the State, Eastern capitalists would not put in a dollar, unless the people of this State would show by subscribing \$200,000 to the stock, that they felt an interest in it and would stand by it. They did so, and the Central Railroad within ten years after, was worth at least \$100,000 per mile in the value of taxable property which it had added to the State. Furthermore, he said that the \$13,000 of the \$25,000 he then owned, which he subscribed to this road, was of more value to him in the increased trade it brought him than \$50,000 in stock would have been. He was in favor of railroads wherever they would pay. In reference to what had been said regarding Chicago, he said that city was mortgaged up to 87 or 88 per cent. upon its value, and Detroit only 10 or 12 per cent. He was largely interested in building a road in Wisconsin to tap this very Northern Pacific Road, but he would to day sell out at sixty cents on the dollar, and put the proceeds into this Northern Railroad of Michigan, if he could see the thing started with the right spirit. He thought the State should take it in hand, and aid the road by issuing \$5,000 in bonds payable in thirty years, to each mile of the road, and after ten years set aside ten per cent. of the gross earnings of the road to pay off those bonds.

The N. P. R. R. is the real route, and its advantages should not be overlooked nor passed by till it is too late.

Mr. Craig moved that the preamble and resolutions be referred to a committee of five to report at a subsequent meeting to be called by that committee.

The motion prevailed, and the following gentlemen were appointed such committee:

Messrs. W. H. Craig, E. W. Meddaugh, Wm. C. Duncan, John J. Bagley and Franklin Moore.

The meeting then adjourned.

BEST BOOK FOR EVERYBODY.—The new illustrated edition of Webster's Dictionary, containing three thousand engravings, is the best book for everybody that the press has produced in the present century, and should be regarded as indispensable to the well regulated home, reading-room, library and place of business.—*Golden Era.*

Louisville and Nashville Railroad.

We have received a neatly printed and very elaborate report of the above named enterprise for the fiscal year ending June 30th, 1868, from which we condense the following:

EARNINGS.

	Memphis Branch.	Lebanon Branch.	Main Stem.
Pas'ngers.....	\$89,228 51	\$83,377 00	\$672,497 27
Freight.....	92,935 98	86,965 91	1,025,712 06
Express....	8,020 81	8,672 36	73,023 35
Mails.....	5,100 00	6,395 00	27,990 00
Miscell'n'us	399 96	485 37	2,540 65
Total Main Stem.....			\$1,823,763 33
" Lebanon Branch.....			185,895 64
" Memphis Branch.....			195,685 26
" Bardstown Branch.....			23,051 52
" Richmond Branch.....			213 69

Total Main Stem and Branches, viz.:

From passengers..	\$856,818 89
" freight.....	1,215,702 96
" express.....	90,586 57
" mails.....	40,025 00
" miscell'an'us	25,476 02
	<hr/> \$2,228,609 44

EXPENSES.

Repairs of road.....	\$246,352 57
" bridges....	53,426 41
" depots, etc.	27,573 72
" cars.....	143,987 21
" engines....	79,616 81
Transportation.....	367,704 45
Motive power.....	88,138 44
Fuel account.....	107,892 88
Oil and waste.....	13,855 02
Water supply.....	13,321 59
General expenses....	33,493 41
Reconstruction.....	17,618 83
Improvement.....	34,986 05
Salary account.....	22,883 04
Watchmen.....	5,689 61
Stationery.....	1,805 11
Insurance.....	1,292 50
Internal revenue tax..	48,005 48
Revenue stamps.....	871 70
	<hr/> 1,309,514 83

Net earnings (41.24 per cent.)....	\$919,094 61
Interest account.....	227,203 21

Balance.....\$691,891 40

Comparative earnings and expenses for the years 1866-'67, and 1867-'68:

	1866-'67.	1867-'68.
Gross earnings....	\$2,158,874 57	\$2,228,609 44
Operating expen's	1,348,405 90	1,309,514 83
Net earnings.....	\$810,468 67	\$919,094 61
Interest.....	182,912 71	227,203 21
Balance.....	\$627,555 96	\$691,891 40

This is a very satisfactory exhibit as it gives an increase in net earnings of \$108,625 94. The report says:

As appears from the last Annual Report, the bonded debt of the Company was \$2,965,000 for the Main Stem and Branches, exclusive of the Lebanon Branch Extension; bonded debt 30th of June, 1868, as per Table No. 5 of Secretary, was \$2,883,500, showing a

Redemption of bonds during the fiscal year of	\$81,500 00
Added to construction during the fiscal year.....	28,090 85
Interest paid during same period, as per Table No. 7 of Secretary,	227,203 21
	<hr/> \$336,794 06

It will be seen, by the note of the Secretary to Statement No. 6, that the mortgage debt of the Company September 1st was \$2,449,500.

The Board of Directors, under the virtual instructions of the stockholders, have continued the work on the Lebanon Branch Extension between Crab Orchard and London at the usual speed, most of the line between those points having been let to contract before your last annual meeting, and no part of it has been put under contract since that time. It has been the purpose of the Board to keep that work in such a state of forwardness as to be able to meet the Knoxville & Kentucky Road at the State line, connecting at Knoxville with the Blue Ridge Railroad, or to meet the Virginia roads from Norfolk through Bristol to Cumberland Gap, or to meet both of said lines at the points designated, if hereafter deemed advisable by the stockholders, together with the Ashville, Morristown, Cumberland Gap, and Charleston line, now being built in East Tennessee, and completed within three miles of the North Carolina State line and within forty miles of Cumberland Gap. This line, completed as contemplated by its projectors, will connect us at Cumberland Gap with the interior of East Tennessee, North and South Carolina, and some of the most important points on the Atlantic seaboard; and it is sincerely hoped that these connections will speedily be made. A few years of prosperity for the country will insure their accomplishment.

We report the favorable progress of the work on the Richmond Branch. It is believed that it will be completed and in running order by the 15th of November of the present year. From the character of the soil and productions of that portion of the State, and the wealth, industry, and energy of the people of the counties through which the road passes, coupled with the fact that it will serve as a feeder to seventy-five miles of the Lebanon Branch and thirty miles of the Main Stem, it is earnestly hoped that the Company will be more than repaid for the outlay in its construction.

In September, 1867, the Board of Directors leased for the term of ten years the Memphis & Ohio Railroad, leading from Memphis to Paris, Tennessee, since which time it has been run by this Company; and you are referred to A. Fink's Report for the result of the first ten months' operations. The road was, of course, out of order, as were all other Southern roads at the close of the war. But since the lease it has been put in good running order, and no doubt is entertained that the arrangement will result favorably to your interests. The Memphis, Clarksville & Louisville Railroad is still in the hands of a Receiver of the State of Tennessee, and your Company is now running it under and as the agent of the Receiver, by which arrangement, and by our lease and possession of the Memphis & Ohio road, we operate the line from Louisville to Memphis as one line, making the whole length of road run by this Company 561½ miles, as will more fully appear by reference to Mr. Fink's Report.

We have pleasure in stating that the affairs of the Company generally are in a healthy and safe condition, with bright prospects of

rapidly increasing prosperity in the near future. Our connections in all directions will doubtless be speedily completed. We have now uninterrupted connection by our Main Stem with Nashville, and through that point to Middle and East Tennessee, and Virginia, North Alabama, Charleston, S. C. and North and Middle Georgia, by the Nashville & Chattanooga and Nashville & Decatur Railroads—with Mobile and South Alabama, from Humbolt, on the Louisville and Memphis line, by the Mobile & Ohio road—with Western Tennessee, Central Mississippi, Louisiana, and Texas, by our Memphis line, and from Humbolt by the Mobile & Ohio, Mississippi Central, and the New Orleans, Jackson & Great Northern Railroads and their connections; and there is now a daily line of sleeping-cars from Louisville to New Orleans and from New Orleans to Louisville without change of cars.

The work on the Railroad Bridge at Louisville is progressing favorably, and the entire structure will probably be completed by the 1st of September of next year, which will secure direct and uninterrupted connection with all points north, north-east, and north-west of Louisville. The Louisville, Cincinnati & Lexington road from Lagrange, on the Louisville & Frankfort road, to Covington or Newport, opposite Cincinnati, a direct line from Louisville to Cincinnati, will be completed and in operation in the Spring of 1869, giving us additional facilities for all connections north and north-east of Louisville.

By the Louisville & Frankfort and Lexington & Frankfort roads, we have direct connection with Frankfort, the capital of the State, and with Lexington and the adjacent country, perhaps the finest in the State of Kentucky; and after the construction of the road from Lexington to the mouth of Big Sandy, which will doubtless be accomplished within a very few years, our road will connect with the Baltimore & Ohio Railroad and its connections by the Big Sandy route. And by our Lebanon and Richmond Branches we have and will have connections with the finest mineral region of Kentucky, and little inferior, if any, in agricultural resources to the best portions of the State, and by the Lebanon Branch Extension and its connection with the Virginia, North and South Carolina, and East Tennessee roads, as already indicated in this Report, we will have all the desired eastern connections.

At Memphis we have connection with the finest agricultural portion of the State of Mississippi, by the Mississippi and Tennessee Railroad, which runs from Memphis to Grenada, Mississippi, there connecting with the Mississippi Central Railroad. And at Memphis also we will doubtless shortly be connected with the most fertile portion of Arkansas by the reconstruction and completion of the Memphis & Little Rock Railroad. That Company was greatly crippled by the war, and is struggling to reclaim its losses by finishing the road to Little Rock, which can only be a question of time. Its early completion is, of course, a matter of more than ordinary interest and concern to your Company.

And at Elizabethtown, on our road, and from that point by way of the projected Elizabethtown & Paducah Railroad, we will penetrate another portion of the State, as yet without railroad facilities, and not surpassed in the great elements that make up the wealth of a State by any portion of the South-west. The stock of the Company has not yet been subscribed for, but in the energy, industry, and perseverance of its President, Samuel

B. Thomas, Esq., we have guaranty of final success.

And with all these various connections in almost every direction, now completed and speedily to be completed, by judicious management on our part, there can be no reasonable ground to doubt that a few years of prosperity in the country will make the Louisville & Nashville Railroad all that the stockholders should desire.

The half million of bonds of the Louisville, Cincinnati & Lexington Railroad Company, for which this Company subscribed in aid of the construction of the road from Lagrange to the Ohio opposite Cincinnati, have been sold without loss to our Company.

Under the amendment to our charter, accepted by the stockholders on the 31st of March, 1868, the Board of Directors have made preparation for the issuance and sale of the bonds contemplated by the amendment, and have caused to be executed a mortgage upon the property of the Company to secure the payment of the bonds and interest, and are now offering for sale a limited amount of the bonds in New York and Louisville.

It was the purpose of the retiring Board to sell the bonds only as the proceeds were needed, for the preservation of the property, and the objects contemplated by the amendment, and with this purpose steadily adhered to by our successors the wisdom of the amendment will very shortly be made practically obvious. The property cost the Company more than \$13,000,000, and is now worth certainly over \$15,000,000, with a mortgage debt upon it of less than two millions and a half; and by the proper use of the proceeds of the bonds issued under the amendment in the acquisition of additional property, the debt of the Company will not certainly increase more rapidly than will the property increase in amount and value, and it is believed that

much better than this may be done for the Company.

From the Superintendent's Report we extract:

On the 4th of February the Knoxville (Lebanon) Branch Extension was opened for business as far as Broadhead Station, 7 2-10 miles beyond Crab Orchard, and 122 2-10 miles from Louisville.

The Richmond Branch was opened for business as far as Lancaster on the 8th of June, 1868. This Station is 7 8-10 miles from where the Richmond Branch leaves the Knoxville Branch, and 112 6-10 miles from Louisville.

Since the 1st of September, 1867, the Memphis and Ohio Railroad has been operated by this Company under a lease.

On the 17th of February arrangements were made with the Receiver of the Memphis, Clarksville & Louisville Railroad, under which this Company has operated the road since that time for the State of Tennessee. The results of the operation of these two roads will be referred to more in detail hereafter.

The total length of road now operated by this company is as follows:

	Miles.
L. & N. R. R., Main Stem.....	185.0
" " Bardstown Branch.....	17.3
" " Knoxville (Leb'n) Branch.....	92.5
" " Richmond Branch.....	7.8
" " Memphis Branch.....	46.0

Total length of road owned by L. & N. R. R. Co.	348.6
Memphis, Clarksville & Louisville R. R.	82.6
Memphis & Ohio R. R.	130.3

Total length of road operated by this Company	561.5
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PASSENGER BUSINESS.

	1867-68.		1866-67.	
	Revenue.	Number.	Number.	Revenue.
Passengers from Louisville to Nashville, thro....	\$66,166 20	9,395 }	19,738	
" " " " local....	54,457 05	7,449 }		
" " " " State Line, thro....	82,389 70	12,859 }	10,806	
" " " " local....	3,922 35	610 }		
" " Nashville to Louisville, thro....	67,184 11	9,546 }	19,288	
" " " " local....	51,964 25	7,195 }		
" " State Line " thro....	69,109 25	10,856 }	9,020	
" " " " local....	1,599 75	237 }		
Total through.....	\$396,792 66	58,147	58,852	\$401,492 66
Total Local and through.....	856,818 89	365,646	358,747	877,264 72
Local through.....	\$460,026 23	307,499	299,895	\$475,772 06

This Table shows a reduction of passengers—
From Louisville to Nashville of...2,894
And from Nashville to Louisville
of.....2,547-5,441

And an increase of passengers—
From Louisville to State Line of...2,663
And from State Line to Louisville
of.....2,073-4,736

Total decrease of thro' Passengers.....	705
And decrease in the revenue of.....	\$4,700 00
The decrease in the revenue from local Passengers is	15,745 83
Total decrease.....	\$20,445 83

The question of local and through traffic is well discussed, and facts of great value presented; we extract the following upon these points:

The revenue derived from the local and through traffic respectively, both from passengers and freight, is as follows:

	Through.	Local.
Freight	\$527,987 50	\$687,715 46
Passengers.....	284,849 26	571,969 63
Express Service.....		90,586 57
Mail Service		40,025 00
Total	\$812,836 76	\$1,390,296 66

The revenue derived from through business is nearly 37 per cent. of the total revenue, and over 64 per cent. of the local earnings.

The revenue from business between terminal stations, when it is not known that it comes from, or goes beyond such stations, is included in the local revenue. The miscellaneous earnings are not included in the above statement.

Deducting from the local revenue, the revenue derived from the Knoxville, Bardstown, and Richmond Branches—over which no through business is transacted—we find that the local revenue of Main Stem and Memphis Branch is \$1,181,135 81, and that the revenue from through business is over 68 per cent. of the local, and nearly 41 per cent. of the whole revenue derived from Main Stem and Memphis Branch.

Although it is generally conceded that the transaction of a large through business over the road must prove remunerative to the Company, the fact that local interests are thereby also greatly benefited is hardly ever appreciated. It is no doubt for this reason that local shippers consider it an act of injustice to them—the builders of the road—that the railroad company transports freight coming from a distance, or in other words, "through freight," at lower rates than is charged for local freight. They argue—and to those who are ignorant of the principles which govern the case their arguments must appear plausible enough—that the people who contributed their means toward the building of the road should have the preference over those who never furnished a dollar for its construction. Were it merely a question of preference, this should certainly be the case. But in reality the question is this: Shall the through business be secured to the road, or shall it be permitted to pass over other routes? It is evident that if the rates are not made to meet competing lines of transportation, this class of business must be lost to the Company altogether. During the past year this Company realized from through business alone the sum of \$12,836 76, of which 58 76 100 per cent. was expended in operating the road, leaving a net profit of \$335,213 87, equal to 36 47-100 per cent. of the entire net revenue. Thus people living at a distance, who had nothing to do with the building of the road, contributed largely toward making it a successful enterprise. Nor are the owners of the road alone benefited by this business. The sum of \$477,622 89, operating expenses, was nearly all expended along the line of the road, thus stimulating trade by increasing the wealth of the States through which the road passes. Now if this business had not been secured to the road at such rates as could be obtained, it would have been necessary either to have increased the local rates 36 47-100 per cent., or to have reduced the annual dividend 4 3-10 per cent., leaving it at 1 7-10 instead of 6 per cent. on the capital stock. But as long as the road is operated in the interest of all the stockholders, and not for the benefit of a certain class of shippers, the main object must always be to secure a sufficient revenue to pay a reasonable dividend on the capital invested. Hence, if the through business is neglected, or is forced over rival routes on account of high rates, the local shipper must either contribute the whole amount of the loss, or the owners of the road lose the interest on their capital, in which latter case the local shippers must still furnish the entire operating expenses, as otherwise the road could not be kept in running order for any length of

time. The unavoidable result, therefore, would be to raise the local tariff, while, on the other hand, with a large through business, the Company would be enabled to lower it.

THE BRIDGE OVER THE OHIO RIVER.

The bridge over the Ohio River, for the construction of which this Company extended aid, is soon to be completed, and by means of it a large amount of traffic will no doubt be directed to Louisville, and over the Louisville & Nashville Railroad.

CINCINNATI CONNECTIONS.

The Louisville & Cincinnati Railroad, also largely aided by this Company, is being rapidly pushed to completion, and, when closely connected with our road, will become one of the principal feeders, as it will enable us to tap the immense traffic brought there by all the eastern trunk lines, and which now reaches the south by river and rail without touching Louisville.

The report as a whole is one of the most complete and satisfactory we have had the pleasure of looking over for some time. Every interest is exhibited, and such a mass of detailed information given touching the road and all its interests, as places the work intelligently before its owners and the country.

Its officers are: President, H. D. Newcomb; Secretary, Willis Ranney; General Superintendent, Albert Fink.

The Pacific Railroads—What is Doing at Salt Lake.

I arrived here yesterday from the terminus of the Union Pacific Railroad, having accomplished the journey from Green River in forty-eight hours, from Salt Lake City in four days from Wadsworth, (the then terminus for passenger travel on the Central Pacific) in six and a half days, and from San Francisco in eight days. I had hoped to have completed my trip and reached New York in four days more, making the fastest trip yet accomplished between the two oceans (twelve days). The following summary embraces the latest items of interest on the Pacific Coast and overland line:

CENTRAL PACIFIC RAILROAD.

The Central Pacific Railroad is graded within 250 miles of Salt Lake. Track is laid to Reese river, and the road will be operated to that point 380 miles east of Sacramento and 270 miles west of Salt Lake before winter. Ten thousand men are pushing the work with the greatest energy, and there is a fair prospect of reaching the lake early next spring. Lack of rail will alone prevent them.

Stage connections will be made at the crossing of the Humboldt—95 miles east of Wadsworth, the present connection, early in November.

The company's work on the snow sheds through the Sierras and down the Truckee is nearly complete.

OVERLAND MAILS.

Owing to the hiatus between the Government and the contracting parties overland, postal matters have come to a dead lock, and enormous amounts of matter have accumulated at Wadsworth.

The resources of Wells, Fargo & Co., large as they are, are quite inadequate to the demands of the public and the necessities of the

postal service, and ought to be largely increased. Stages between Wadsworth, Austin and Salt Lake City are literally loaded down with passengers and express freight, and both are left behind daily for want of transportation. Letters for California and far West should be sent by Panama.

Numerous changes have recently been made in the organization of the branch offices of Wells, Fargo & Co.'s overland service, and others will shortly follow. Division Superintendents Stewart and Wines have gone West, and are not expected to return. Mr. J. J. Cotterell succeeds Mr. J. J. Tracy in the general superintendence of the line, and when he gets fairly to work other important changes and reforms may be looked for.

WHAT THE SAINTS ARE DOING.

The Mormons have again resolved on non-commercial intercourse with the Gentiles. The proscription is daily becoming more general and stringent. Trade co-operative societies are rapidly forming, and ward meetings are being held almost nightly in Salt Lake City to further the interest of Mormon merchants in opposition to Gentile traders.

The leading Mormons favor the project of another Pacific railroad through Utah, and seem disposed to encourage and reciprocate commercial intercourse with the East and West to the utmost.

Gen. (Pat.) Connor is about to launch a small steamer on Great Salt Lake, to be employed in towing logs for the Central Pacific Railroad. When its immediate work is done, Gen. Connor hopes to make it available for purposes of pleasure travel on the lake.

UNION PACIFIC RAILROAD PROGRESS.

The grading on this road is now completed through Weber and Echo canyons, and will be very shortly completed to Bear river, fifty-six miles east of Salt Lake. The track is laid a few miles west of Ham's Fork, and there is little doubt that they will reach the Bear with the rail before winter sets. Green River, 815 miles west of Omaha, is the present passenger terminus, and Bryan will, it is thought, be the permanent traffic terminus for the winter. Dr. Durant is now at the front determined to lay an average of five miles of track daily before he leaves for the East.—*N. Y. Times*.

ORGANIZATION OF THE CINCINNATI AND BALTIMORE RAILWAY COMPANY.—The stockholders of this company met to-day, at the office of the Cincinnati and Indianapolis Railroad, corner of Pearl and Plum streets, and organized by choosing the following gentlemen as Directors.

John King, Jr., of Baltimore; C. Oliver O'Donnell, do.; Henry C. Lord, of Cincinnati; Kennor Garrard, do.; John Donne I Smith, do.; Wylie H. Oldham, of Marietta; Wm. T. McClintick, of Chillicothe. John King, Jr., of Baltimore, was elected President; S. W. Kilvert, Secretary; John Donnell Smith, Treasurer; and John Waddle, Chief Engineer.

The annual meeting for the election of officers for the Danville, Urbana and Pekin Railroad was held in the City of Urbana on the 20th of October. Most of the townships and towns along the line were represented. The following named persons were elected: President, Clark R. Griggs; Vice President, Ties Smith; Secretary and Treasurer, William J. Ermentrout; Engineer, Thos. King; Attorney, A. M. Ayers; Superintendent, Wm. H. Smith.

INDIANAPOLIS, CRAWFORDSVILLE & DANVILLE RAILROAD.—From a special correspondence in the *Gazette* dated at Crawfordsville, Nov. 12th, we learn that the celebration of driving the first spike was had at that place. The writer says:

"Today the ceremony of laying the first rail on the Indianapolis, Crawfordsville & Danville Railroad, was held at this place. Arrangements were perfected for the event by which a large concourse of people assembled to participate in the formal inauguration of this important enterprise.

At three o'clock this afternoon, under the direction of the Engineer of the road, the first spikes were driven by Prof. J. S. Campbell, of Wabash College, amid the booming of cannon, the stirring music of the silver band, and the enthusiastic plaudits of hundreds of our citizens. The spikes were driven without missing, and the first rail pointing toward Indianapolis was located in its proper place."

This road will run in a north-westerly direction from Indianapolis, via Crawfordsville and Covington, Indiana, to Danville, Illinois, and in the same general direction, via Urbana and Bloomington to Peoria, and so on pointing towards a Pacific Railroad connection at Omaha.



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10,000 Words and Meanings not in other Dictionaries.

Viewed as a whole, we are confident that no other living language has a dictionary which so fully and faithfully sets forth its present condition as this last edition of Webster does of our written and spoken English tongue.—*Harper's Magazine*.

The work is a marvelous specimen of learning, taste, and thorough labor. We praise it heartily, because we believe it deserves the heartiest praise.—*N. Y. Albion*.

These three books are the sum total of great libraries: the Bible, Shakespeare, and Webster's Royal Quarto.—*Chicago Evening Journal*.

The New WEBSTER is glorious—it is perfect—it distances and defies competition—it leaves nothing to be desired.—*J. H. Raymond, L.L.D., Pres't Vassar College*.

The most useful and remarkable compendium of human knowledge in our language.—*W. S. Clark, President Mass. Agricultural College*.

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BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{4}$ inches in width, and under. For Tickets over $2\frac{1}{4}$ inches in width.

SIZE NO. OF FORMS.	PRICES.	SIZE NO. OF FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

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All orders addressed to us will receive prompt attention.

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MERCHANTS,

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BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

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WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

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J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati.
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
O. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
[Aug. 2, 1886]

THE STEAM SYPHON PUMP

IS THE

Most Simple, Effective and Durable Device for Raising Water by steam, yet discovered.

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Sheds, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

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Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	4,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,

for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

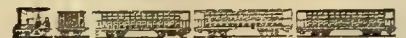
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at the northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 18:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front Ye East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m.; Pittsburg 12 o'clock

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 4:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST LINE, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

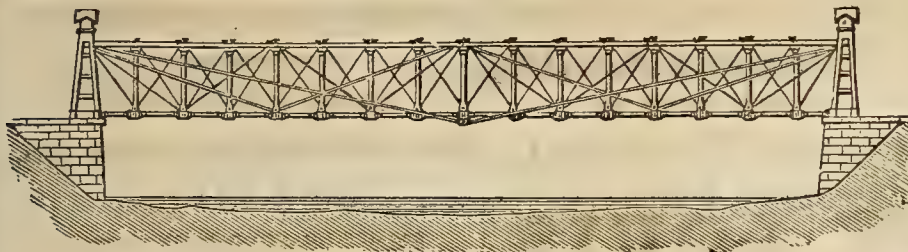
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent

F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

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M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and railroad works to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

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ENGINEERING & TELEGRAPHIC

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Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

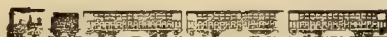
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
Pittsburg, Pa.

CUMBERLAND COUNTY

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NEAR

The Great Crocus Well,

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Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

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—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

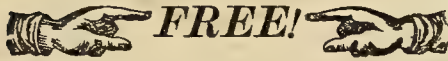
Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
 Baltimore.*

L. WILSON, Master of Transportation.
 M. COLE, General Ticket Agent.
 O. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Rich- mond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

JANUARY 5th, 1868.

*Cincinnati to St. Louis Without
 Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph,
 Jefferson City, and all points on the Lower Mis-
 sissippi River, and on the the Illinois
 Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Even. Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 30 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 30 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine
 Street; Corner Front and Broadway; and at Depot, Foot
 of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
 J. W. CONLOGUE,
 General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North west and South-west.

5 THROUGH TRAINS DAILY,
 (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and
 Chicago.
 Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House
 Office, corner of Third and Vine; River Office, corner of Plum
 and Walnut Street and River; and at Depot, corner of Plum
 and Pearl streets. The splendid Passenger Depot of the
 I. & C. Railroad is about a mile nearer the business center
 of the city than the Depot of any other railroad, and with-
 in a few squares of the Postoffice and principal hotels and
 Steamboat landings.

J. F. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CON-
 stantly on hand, painted, and ready for shipment,
 with instructions for applying them.

MOSELEY & CO.
 Boston, Mass.

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Successor to

McDANIEL & HORNER,*Locomotive and Railroad***CAR SPRING MANUFACTURER,**

Wilmington, N. Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

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JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast char-
 coal Pig Iron, refined with Charcoal in the old-fashioned
 Forge Fire, hammered into a Bloom from which Iron
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 is conducted at our own Works June 9

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LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness
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COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central
 Railroad, near the center of the State, possess superior
 facilities for forwarding their work to any part of the coun-
 try without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boli-
er Flues—from 1½ to 60 inches outside diameter, cut
 to definite lengths.

Wrought Iron Welded Tubes—from ¼ inch to
 8 inches inside diameter, with screw and socket connec-
 tions, for Steam, Gas Water, or other purposes, and fit-
 tings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong
 and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in
 diameter, and branches for same. &c.,

Gas Works Castings, etc., etc.

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 BY G. MORRIS.

Philadelphia, Wilm'gton & Baltimore**RAILROAD!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M.
 Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20
 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2
 P. M. Express

SUNDAY TRAINS—Leave Philadelphia for Baltimor
 at 4.15 A. M. and 11.00 P. M. Leave at
 timore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave
 Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, NOVEMBER 26, 1863.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1.00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.	
	DEPART. ARRIVE.
Morning Express	7:00 P. M. 6:10 A. M.
Night Express.....	6:00 A. M. 6:00 P. M.

LITTLE MIAMI.	
Lightning Express.....	7:00 A. M. 4:35 P. M.
Express Mail.....	8:30 A. M.
Columbus Accommodation.....	3:50 P. M. 10:20 A. M.
Morrow Accommodation.....	5:20 P. M. 8:00 A. M.
Lightning Express.....	8:00 P. M. 10:35 P. M.
Night Express.....	6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.	
Lightning Express.....	7:00 A. M. 7:25 P. M.
Express Mail.....	9:30 A. M. 5:25 A. M.
New York Express.....	8:00 P. M. 8:35 A. M.

MARIETTA AND CINCINNATI.	
Depot on Pearl street, bet. Plum and Central avenue.	
Baltimore and Washington City	
Express and Hillsboro Mail.....	7:30 A. M. 5:00 P. M.
Baltimore and Washington City	

Night Express.....	12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M. 10:00 A. M.
Loveland Accommodation.....	5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.	
Toledo, Detroit and Canada.....	6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M. 6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M. 5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M. 10:30 P. M.
Hamilton Accommodation.....	6:30 P. M. 7:55 A. M.
Dayton Accommodation.....	6:30 P. M. 10:30 A. M.
Dayton Express.....	5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.	
Day Express	7:20 A. M. 7:05 P. M.
Night Express	5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.	
Connorsville, Cambridge City and Indianapolis Mail.....	6:15 A. M. 10:20 A. M.
Connorsville, Cambridge City and Indianapolis Express.....	5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.	
Chicago and St. Louis Express.....	7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M. 8:10 A. M.
Harrison Accommodation.....	10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.	
St. Louis, Cairo & Louisville.....	7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M. 6:10 A. M.
Louisville Special Train	3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.	
Mail.....	7:00 A. M. 4:10 P. M.
Caboose Accommodation.....	3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.	
Express.....	6:00 A. M. 6:00 P. M.
Lexington Express.....	2:00 P. M. 10:50 A. M.
Falmouth Accommodation.....	6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.	
Express Mail.....	7:00 A. M. 6:15 A. M.
Fast Express.....	8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M. 10:35 A. M.

CINCINNATI INTERESTS.

Southern Railroad.

How the city can make it.

Views of the Daily Press.

No one will dispute the fact that we, with other members of the city press, have "said enough" about the importance of constructing a railroad through the State of Kentucky to connect us with the whole Southern system of railroads to have at least accomplished something; but we have to confess, thus far, all efforts have been "a most signal failure."

There seems to be a sort of fatuity that has hitherto "blocked up the wheels" of private enterprise. Although we confess to a great lack of faith in corporate authorities to manage, *economically*, the construction of any work, however small, yet rather than not have the road through Kentucky made, or even have its construction delayed for two or three years longer, we would say, adopt by all means the plan suggested by E. A. FERGUSON, Esq., and push forward the work to completion. We still contend that its construction by private enterprise would be preferable, if it can be accomplished; and we believe it can. This, however, is a matter of faith merely, we now not only want faith, but works, and if one plan won't accomplish results, the other will. Hence, we are in favor of having the law passed by the Legislature, and if private enterprise shall not find a practical plan for its construction in the next three months, or before the season of active operations shall again come round, why then let the municipality "cut its swath."

The question of the ability of the city, under the constitution, to do this work is not a new one; while the disability to participate in any enterprise as partner, has been admitted and regretted; yet we have on various occasions indicated that by proper legislative action, the city could, *alone*, construct any work of internal improvement. We asserted this power in one of our issues of last September, and on several other previous occasions. The citizens, however, owe many thanks to Mr. FERGUSON for giving shape to the enabling act, and bringing it so forcibly before them. It can not fail to meet with universal approval, and although there may be some points in the bill not perfect, yet in the cursory reading that we have given it, we have failed to perceive them. There is one other point to which we will draw attention. Legislative enactments and municipal enterprise, as a general rule, are "slow" in their operation; although we confess it would be difficult to conceive of any thing "slower" than the *past history* of the "direct route" to the South, as

conducted under individual effort. Yet there was *reasons* of delay, that have been explained an hundred times—these are now removed, and real, active efforts are now being made, which, we trust, will result in success. The time now is when Cincinnati needs the road, and can not afford to longer delay; this we regard as more important than *how* or by *whom* it is to be built. Besides, the wisdom of the Legislature may not grant the bill, and then another year will be lost; while private enterprise, if the arrangements were now complete, would have no further cause of delay. We unquestionably express and but reiterate the general sentiment of our citizens when we say, "no matter how it is done, nor at what cost, let us have the road."

We will, in this connection, however, remark, that H. C. LORD, Esq., President of the Cincinnati, Lexington & East Tennessee Railroad, is now in New York completing negotiations for the reserve funds for the construction of the road. We have reasons to say that we *know* that he will upon his return report his mission successful; *provided* certain amounts of *bonus* and *stock* are subscribed by the citizens of Cincinnati, the total sums of which are so trivial that if they are not immediately raised, we shall conclude that our citizens do *not* want the road, and therefore it is useless to make any farther exertions.

Below we give a copy of the Act, and the remarks in reference to it by the daily press:—

A Bill Relating to Cities of the First-Class, Having a Population Exceeding One Hundred and Fifty Thousand Inhabitants.

SECTION 1 *Be it enacted by the General Assembly of the State of Ohio*, That whenever, in any city of the first-class having a population exceeding one hundred and fifty thousand inhabitants, the City Council thereof shall, by a resolution, passed by a majority of the members elected thereto, declare it to be essential to the interests of such city, that a line of railway, to be named in said resolution, should be provided between *termini* designated therein, one of which shall be such city, it shall be lawful for a board of trustees, appointed as herein provided, and they are hereby authorized to borrow, as a fund for that purpose, not to exceed the sum of ——— millions of dollars, and to issue bonds therefor, in the name of said city, under the corporate seal thereof, bearing interest at a rate not to exceed ——— *per centum per annum*, payable at such times and places, and in such sums, as shall be deemed just by said board. Said bonds shall be signed by the president of said board, and attested by the city auditor, who shall keep a register of the same, and shall be secured by a mortgage on the line of railway and its net income, and by the pledge of the faith of the city and a tax, which it shall be the duty of the council thereof annually to levy, sufficient, with said net income, to pay the interest and provide a sinking fund for the final redemption of said bonds.

SEC. 2. Immediately after the passage of a resolution, as provided in the first section, it shall be the duty of the City Solicitor to file a petition in the Superior Court of said city, or, if there be no Superior Court, then in the Court of Common Pleas of the county in which said city is situate, praying that the judges thereof will appoint five trustees, to be called the Trustees of ———— Railway, (the blank to be filled with the name given to the railway in the resolution), and it shall be the duty of said judges to make the appointment, and to enter the same on the minutes of the Court.

SEC. 3. The said trustees and their successors shall be the trustees of the said fund, and shall have the control and disbursement of the same. They shall expend said fund in procuring the right to construct, and in constructing, a single or double track railway, with all the usual appendages, including a line of telegraph between the *termini* specified in the said resolution, and for the purposes aforesaid shall have power and capacity to make contracts, appoint, employ, and pay officers and agents, and to acquire, hold and possess all the necessary real and personal property and franchises, either in this State, or in any other State into which said line of railway may extend. They shall also have power to receive donations of land, money, bonds and other personal property, and to dispose of the same in aid of said fund.

SEC. 4. The said trustees shall form a board and shall choose one of their number President, who shall also be the acting trustee, with such power as the board may by resolution from time to time confer upon him. A majority of said trustees shall constitute a quorum, and shall hold regular meetings for the transaction of business at their office in the city under whose action they are appointed, but they may adjourn from time to time to meet at any time and place they may think proper. They shall keep a record of their proceedings, and they shall cause to be kept a full and accurate account of their receipts and disbursements, and make a report of the same to the city Auditor annually, and whenever requested by a resolution of the City Council. No money shall be drawn from said fund but upon the order of said board, except their own compensation, which shall be paid out of the same upon the allowance of the Court appointing them, and shall be proportioned according to their respective services.

SEC. 5. Said trustees shall have power to take such security from any officer, agent, or contractor chosen, appointed or employed by them, as they shall deem advisable. They shall not become surety for any such officer, agent or contractor, or be interested directly or indirectly in any contract concerning said railway. They shall be responsible only for their own acts.

SEC. 6. Whenever the City Solicitor of any city, under whose action a board of trustees has been appointed as herein provided, shall have reason to believe that any one of said trustees has failed in the faithful performance of his trust, it shall be his duty to apply to the Court that appointed said trustee by petition, praying that such trustee be removed, and another appointed in his place; and when a vacancy shall occur in said board from any other cause, it shall be filled in like manner. If the said City Solicitor shall fail to make application in either of the foregoing cases, after request by any holder of the bonds issued by said trustees, such bondholder may file a petition in his own name on behalf of

the holders of such bonds for like relief, in any Court having jurisdiction, and if the Court hearing the action shall adjudge in favor of the plaintiff, he shall be allowed as part of his costs, a reasonable compensation to his attorneys.

SEC. 7. Whenever in the construction of a line of railway, as herein provided, it shall be necessary to appropriate land for the foundation of the abutments or piers of any bridge across any stream within or bordering upon this State, or for any other purpose, or to appropriate any rights or franchises, proceedings shall be commenced and conducted in accordance with the act entitled "An Act to provide for compensation to the owners of private property appropriated to the use of corporations," passed April 3d, 1852, and the acts supplementary thereto, except that the oath and verdict of the jury, and the judgment of the court shall be so varied so as to suit the case.

SEC. 8. Whenever there shall be between the *termini* designated in any resolution passed under this act, a railroad already partially constructed, or rights of way acquired, therefor which can be adopted as part of the line, provided for in said resolution, the trustees of said line may purchase the said railroad and rights of way, and pay for the same out of the trust fund.

SEC. 9. The said Trustees shall have power as fast as portions of the line for which they are trustees are completed, to rent or lease the right to use and operate such portions upon such term as they may deem best, but such rights shall cease and determine on the final completion of the whole line, when the right to use and operate the same shall be leased by them to such person or company as will conform to the terms and conditions which shall be fixed and provided by the Council of the city by which the line of railway is owned.

SEC. 10. The City Council of any city passing a resolution as provided in the first section may appropriate and pay to the said trustees, out of the general fund of said city, such sum as may be necessary for carrying the object of said resolution into effect, and said sum shall be repaid out of said trust fund when raised.

SEC. 11. This act shall take effect on its passage.

Cincinnati and the Southern Railroad.

[From the Cincinnati Enquirer.]

Below we print a bill drawn by an eminent lawyer of this city, to be introduced at an early day in the present session of our State Legislature, designed to secure the completion of the long-proposed railroad connection between this city and the South. Of the importance of this measure it is unnecessary for us to speak. We have often discussed it, and always to commend it. The bill as drawn, meets the approval of our people, irrespective of party lines or political complexion. It is approved as the true and only solution of a great problem, and the achievement of a great purpose. Cincinnati needs this Southern railroad. Her people have felt its necessity for more than twenty years, and have more than twenty times essayed to build it. They now ask the Legislature to pass the subjoined bill as the surest and speediest way of doing the work. We trust they will not be disappointed; and we can assure all our friends at Columbus that in giving their assent to it they will do much to increase the wealth and prosperity of Cincinnati and the State of Ohio.

Ferguson's Railway Bill.

[From the Daily Times.]

A bill has been introduced into the Legislature relating to cities of the first-class having a population exceeding 150,000.

While it is general in its title and scope, it is really special to this city, since there is no other city in the State having that population.

[The above is followed with an abstract of the provisions of the bill, but is not accompanied with any Editorial comments.—Ed. RECORD.]

The Southern Railroad.

[From the Evening Chronicle.]

The importance of a Southern railroad, which the *Chronicle* has often urged upon our people, is at last beginning to be realized. Its friends, having almost de-paired of getting individuals or our railroad corporations to take hold of and construct it, are now making efforts to enable the city to take the matter in hand. We hope they will succeed. It will be an astonishment to some of our slow-going people to see the city of Cincinnati undertaking the job of building an extensive line of railroad. Were there any other practicable way of accomplishing our purposes, we should prefer that it be adopted; but there seems to be none. The framers of our Constitution, impressed with the idea that wisdom and prudence would die with them, made an effort to legislate for all time to come, and to prohibit future interference with their wondrous works. Yet, as a body, they stood very little higher than any Legislature that has convened under the Constitution they framed. A part of their wise work was to provide that no city should ever loan its credit or subscribe to the stock of any corporation whatever, or to raise money in aid thereof. By reason of this provision of the Constitution, the progress of Cincinnati has been hindered, and its rapid growth both in population and wealth has been prevented. While, however, we may not subscribe stock, loan our credit or raise money for the benefit of any corporation, there is nothing to prevent the city in its corporate capacity from prosecuting the work usually done by corporations—building water works, gas works, highways or railways, either in or out of the corporate limits, *provided, always*, that the Legislature grant the authority. This, at least, is the opinion of some of our best lawyers.

Acting on this opinion, ALEXANDER FERGUSON, Esq., at the instance of friends of the Southern enterprise, has drawn up a bill to be presented to the present Legislature, with the hope that they will take favorable action on it. With very slight changes we hope the bill will become a law.

The bill is very carefully drawn, and should it become a law, we shall expect the result to be very advantageous to our city, and the wise legislator is well aware that the interests of Cincinnati are identical with the interests of the State.

How Cincinnati may build the Southern Railroad.

[From the Cincinnati Gazette.]

Cincinnati needs a railroad directly South, to connect with the extensive system of railroads in the Gulf States, in order to secure her future progress. This is the great want of our people. That accomplished, there would be general confidence that the growth

of our city would continue to be commensurate to the growth of the whole country. Without that, this confidence will be lacking. And the lack of confidence in the future is in itself a blight upon its increase. The matter has been agitated for a quarter of a century, and, at this time, agitation is the only result. The project seems as far from accomplishment as ever. There are strong elements to co-operate and aid, but there is no more promise now of the capital foundation and organization that can grasp these auxiliaries and combine them in the object than there was when the project was first started.

It is evident that the citizens of Cincinnati must build the road, or it will not be built. But when subscriptions of private capital are talked of, it is found that the property holders, who would be most directly benefited by the increased prosperity of the city, are inert, and inclined to leave the support of the undertaking to business capital. This creates dissatisfaction. This situation has caused a general regret that the Constitution forbids the city from aiding the construction of the road by its subscription to the stock, or by the loan of its credit; for in such a way the burdens of the aid given by the city would be equitably distributed according to the benefits received. And whatever objects persons may have in the abstract to the undertaking of works of internal improvement by governments, State or municipal, are apt to disappear in the presence of an obvious necessity or great advantage to the general welfare.

The general expression of regret that the city is thus restricted in a matter which is regarded as essential to her future progress, and of a desire that some way may be provided by which she can furnish the requisite aid, has led to a careful examination of the provisions of the Constitution, to see how far the city is limited, and if the limitation does disable her from making this undertaking. The only provision of the Constitution that contains any prohibition affecting this matter is the following:

The General Assembly shall never authorize any county, city, town or township, by vote of its citizens, or otherwise, to become a stockholder in any joint stock company, corporation or association, whatever; or to raise money for, or loan its credit to, or in aid of, any such company, corporation or association.

The entire compass of this limitation is, that the city shall not become a partner in any joint stock company, nor loan its credit to any such association. It does not forbid the grant of authority to the city to undertake works of public improvement on its own account, with its own money, and to raise the means by loan or taxes for that object. Thus the city might not take stock in a waterworks, or gas, or fire-engine company, nor lend its money or credit to them, but it can do these works in its own name. Nor is it limited to the city boundaries in these works. If it had to go beyond them, or beyond the State, to find a source of water, it could do so. The Legislature can not authorize the city to take stock in a railroad company, nor to lend its money or credit to such a company, but there is nothing in the Constitution which prohibits the grant of power to the city to build the railroad, and to borrow money for that purpose, and to levy a tax to sustain the credit which it thus extends.

The only question, therefore, that remains is, whether this road, directly south from Cincinnati, is so essential to the preservation of the prosperity of Cincinnati, and to the continuance of her pace of growth, as to demand

that the city shall take the work upon her shoulders, and carry it through by her own capital, and by a credit founded on her vast property, in addition to the work itself. She can raise the money on such security on lower terms than any railroad company. She can have the grant made with conditions that shall provide for the selection of trustees by our highest court to manage the undertaking. She can include and combine all the aid that has been tendered along the line of the road. Her ample resources of credit will enable her to complete the undertaking without undergoing the usual sacrifice in financing. When completed, she can either sell the road, or lease it, subject to conditions that will preserve her interest. As it would be politic that she should always have a certain control of transportation rates, in order to protect her own trade, it is probable that the leasing system will be safest.

But the main question is to build the road. That being done, the city will be master of the situation. We present in another part of this paper the draft of a bill to be presented to the General Assembly to grant the necessary authority to the city to build the Southern railroad. It is the work of ALEXANDER FERGUSON, and has been prepared with much care, and after a careful and exhaustive search of the legal authorities, and is believed to be legally impregnable. The bill is drawn in the general style which is made necessary by the Constitution; but as there is no other city in Ohio having 150,000 inhabitants, and is not likely to be soon, the authority is available only to Cincinnati. The first section contains a grant of power to build such a railroad, to create a board of trustees to manage the construction, who may borrow the money and pledge the work and the faith of the city. And it furthermore makes it the duty of the Council to levy a tax to provide for the interest, and a sinking fund for the principal. With these provisions the securities will be better than those of any National or State, or than any simple railroad bond, and these bonds will command a price, or will be negotiable at a lower rate of interest, accordingly.

The amount of capital authorized is intended to be sufficient for the undertaking, while, of course, the amount raised will be no more than is required. The second section provides for the appointment of trustees of said railroad by the Superior Court. The third, fourth, and fifth sections contain the general grants of authority to these trustees to do the things necessary to construct this work. The sixth section provides a summary way of impeaching a trustee for unfaithfulness. The seventh section gives power to appropriate land necessary to piers for bridges. Section eight gives authority, which may be convenient, to take in any road already built on any part of the line, if the trustees shall deem it desirable to acquire the title to such road.

The ninth section provides power to lease the road as it is completed. Section ten authorizes the City Council to pay the trustees. And the eleventh and last section provides that the act shall take effect upon its passage.

Here is a plan by which the city may build the road, if the citizens shall demand it with unanimity. It is a large undertaking, but it will be an investment which will be represented by a railroad property worth the money, and which should pay a fair interest on the capital, and eventually liquidate the debt. In reply to the ready, and the only

great objection, namely, that such an undertaking by municipal corporations is apt to be badly managed, it may be said that the citizens themselves can always exercise an influence on the management, and that if they properly look to their own interests, this undertaking will not be badly managed. The plan is before the public. There is no legal impediment. The legislative authority can be had, if our citizens ask it. It depends on them whether this railroad shall be built or not.

Can Cincinnati build a Railroad?

[From the Cincinnati Commercial.]

Since the new Constitution of Ohio was placed in the hands of its friends, the impression has been prevalent that the city of Cincinnati could not employ her credit in constructing railroads. The general opinion that this disability existed, and the acquiescence in it, has, perhaps, kept the city debt within comparatively reasonable limits; but it is questionable whether it has not prevented the substantial encouragement of enterprises that, consummated, would have made the additional indebtedness an excellent investment.

The conceded inability of the city to do any thing for itself has been especially felt in regard to the proposed Southern railroad. A few years ago, some of our business men started a subscription to aid in the work of connecting Cincinnati and Chattanooga directly by rail. Several of our old merchants and capitalists subscribed largely, and labored with assiduity to make this movement a success. They failed, because many who would have profited largely by success, refused to contribute, expecting to take advantage of the liberality of their neighbors. Out of these circumstances and their great notoriety grew a public opinion that we believe to be intelligent and resolute, to the effect that the thing to do was to employ the credit of the city and make every tax-payer a stockholder in the Southern railroad. Much discussion has taken place as to the most speedy and effective method of executing the public will.

If there were no constitutional difficulties in the way, the credit of the city would certainly soon be loaned to a Southern Railroad Company. It has occurred to one of the most capable members of the legal profession in our city, and we will take the liberty of naming Mr. E. A. FERGUSON, that there is no constitutional prohibition of cities of the first-class in the State of Ohio, (which is the legislative formula for the city of Cincinnati,) building and owning a railroad. And Mr. FERGUSON has carefully prepared a bill to authorize the city of Cincinnati to construct and possess and operate a railroad. This document we print in another column, and need hardly to ask for it the most considerate attention of the tax-payers and business men of this community, for its very great importance and general interest will be universally recognized. Whether Mr. FERGUSON has perfectly succeeded in the object which we have endeavored to make distinct, is a question for lawyers and capitalists, legislators and trustees of the city to determine, after due debate. We may observe that there is a public consciousness that something must be done by Cincinnati for Cincinnati; and if there is a better plan or a better bill than Mr. FERGUSON's there is a demand for it. Objections may be multiplied, but before pronouncing judgment against this new "FERGUSON bill," we would desire to see in the place that it is prepared to fill a better

thing. Amendments may be suggested. Many of possible value will occur to the careful reader. Perhaps it would be worth while to submit the proposition to a popular vote in the city, or to insist upon a two-thirds majority in Council, but these are details and do not touch the essential. One thing is certain, that not only must something be done by Cincinnati for herself, but that the thing done must be something of wider scope and more vital significance than mere local improvements. We may exhaust ourselves in placing parks on every hill, and cutting a superb avenue for each one of our city Councilmen, that the names of the members of our municipal congress may be commended to posterity, and yet we will not bring business to the city. It is not in the decoration of the city that public expenditure is demanded, but in providing material to make more city. Venice did not perish for lack of palaces. She ceased to command the trade of the Indies. Rome was not saved by her water-works, and London has not grown great because she has parks. The trade that is due Cincinnati has been permitted to drift away from her. She has not, as she should have, the trade of the South or the travel of the North. The continental current of travel streams along the lake shore and through the center of the State. The advantage of her commanding location on the Ohio, and her central position in the Union, are in part and for a time lost to her. That which she needs is not about all things, to put on just now the fine raiment of parks and avenues, and to adorn herself and dot the surrounding country with magnificent piles that will perpetually advertise the superb conceptions of gifted architects. We do not absolutely need feudal castles, with cloud-capped towers for the sick, and gorgeous temples for the poor, and work-houses modeled after the Tuileries; but we do require more vital blood in our arteries, a surer grasp upon the broad and fertile and populous region that is naturally our territory—that was ours before we were exceeded in energy and distanced in enterprise. The ease of our early opulence mistaught us. It is time that we should emerge from the dimness of our medieval epoch, and put off the philosophy of indifference that has been cultivated to our cost. We must have parks and avenues and great public edifices, and bigger things generally, to make the city more attractive; but *first* we need to secure for ourselves the imperial dominion that is our rightful heritage, and get the food whereby we are to grow.

TUNNEL UNDER DETROIT RIVER.—The active business men of Detroit entertain serious thoughts of tunneling the Detroit river, so as to form a sure, safe, and direct connection between their city and the Grand Trunk Railway of Canada, and other eastern connections. J. C. Cheesboro, Esq., the constructor of the Chicago Lake Michigan Tunnel, has recently been making examinations of the river-bed and approaches, and pronounces the project to be entirely feasible for railroad purposes.

—Work is progressing on the machinery for the new rolling mill of the Baltimore & Ohio Railway Company at Cumberland, Md. It is intended to have it all ready by next summer, and the construction of the buildings will be commenced in the spring.

The Financial Condition of the Country.

While there is such a shaking of the dry bones among the brokers of New York; such a stirring up among the saints of corruption; such an outcry about money; such a wonder about where the currency is gone, and such a pressure of the merchants—while all this, we say, is going on, we feel persuaded that the financial condition of the country is really sound and healthy. It is very uncomfortable for people to go through a process of medication, or to be put upon a dietary system; but it is essential to arrive at health after a period of disease. This is what we are doing partially; and must hereafter do more of. The demand for money now is very much like the demand for food by a convalescent patient. It is the demand of business men for currency to carry on new enterprises. This demand will not be less till these new enterprises are in full operation. The men who make this demand are not in want of means. They are generally only checking out their own money. This soon checks up the banks, which have long been using this money on their own account. To change the disposition of large masses of money, does, of course, make a temporary stringency. But when that is over the general course of business will be much easier. We will here note some of the signs and elements of our financial condition, which are palpable, but not by any one sufficiently considered.

1. Of the currency. The first fact which strikes us, is the misunderstanding as to the meaning of money or currency. Every one is constantly confounding money and capital together. Money is nothing but a medium of exchange. It is made for that purpose and nothing else; to avoid the inconvenience of barter. If A. and B. were to exchange two articles, which were supposed to be of equal value, they would need no money at all. But as this is seldom the case, they have need of a convenient medium; and this becomes a necessity when A. does not want anything B. has, but wants a representative of the property he sells B., in order to use it with another man. Then money becomes a necessity in order to make the exchange. Now, here arises the first popular error. That is, that the money should have a real intrinsic value, such as gold. There is not the least need of it, whatever. What is needed is that it should be a *sign* or representative of real value. Hence, our paper currency marked with the representative signs of the Government, is just as good as any other, and a good deal more convenient. We are not suffering, therefore, from the kind of money we use. It is just as useful for any purpose of domestic exchange as gold would be. But the great complaint is the *want of money*. Now, a want of money may arise from two different causes: First. There may be a deficiency of currency. Is

that the case in the United States? We think not. On the hypothesis that from 1854 to 1860, there is an average supply of money sufficient for the transaction of business, and that, of the gold standard, we can, with very little difficulty, ascertain how much money we need at the present time. From 1854 to 1860, the average amount of currency, at the gold standard, did not exceed \$250,000,000. Now, we have to add to this the following amounts: first, in proportion to the increased number of people; second, the difference between gold and paper at the present time; and, third, if we can properly estimate, the proportional addition for the taxes and liabilities of government. These are the only elements which can vary the amount of currency required, supposing that formerly in use to have been sufficient. The two first we can determine almost exactly, but the third we can only estimate. The results are these:

Amount in 1858	\$250,000,000
Incr'd population (33½ per cent.) ..	83,333,000

Gold currency required.....	\$333,333,000
Nat'l cur'y, 40 p. c. difference..	133,333,200

\$466,666,200

Increase demanded for Govern- ment purposes (40 per cent.)...	186,666,480
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Total currency required.....\$653,332,680

Now, if we recollect, that the Government keeps one hundred millions of money on hand, and that the payment of taxes and the purchase of bonds amount to a very great sum, we have probably not allowed too much for the additional amount of money required on Government account. It comes then to this: that if our former experience is any authority for the amount of currency required, then \$650,000,000 is, as near as may be, the amount of currency now needed. The actual amount of money now issued, both of legal-tender, fractional currency and National bank notes, is about \$700,000,000. If our calculation be correct, we have now enough currency in use. If it were a gold currency we should need \$400,000,000, and the handling of such a sum in gold value would be more difficult than it is to-day. Notwithstanding the cry so often uttered of "more greenbacks," we think an increased issue could do no good, unless the further depreciation of the currency be desired.

3 What makes the want of currency just now? This is attributable to immense stock operations in New York. In our opinion this is, except to a small extent, a mistake. All the money said to have been withdrawn at New York temporarily, was only about \$20,000,000. Undoubtedly this is enough to derange the money market of New York for a few days, and disturb the banker's correspondents in other cities; but what was it to the country at large? It was only a thirty-fifth part of the whole currency. A far greater cause than this, is one the bankers themselves are hardly conscious of. It is nothing

more or less than the restored confidence of merchants and the stability of business. For two years, whether their opinions were right or wrong, it was, nevertheless, the fact, that large numbers of intelligent business men distrusted the stability and safety of large commercial transactions, on account of political agitation. They did not know whether Government would not issue a large quantity of new currency, or whether, on the other hand, the existing paper currency would not be diminished? They did not know but Government securities might not be impaired, and that would impair all commercial credit. Hence, A, B and C, men of commercial sagacity, either did as little business as possible, or absolutely ceased business for the last two years. But these men had considerable money capital, and this they have either loaned themselves, on short time, or they have made some arrangements with the banks; but A, B and C now have confidence that there will be no great or dangerous changes in the action of Government, and they are preparing for an active and extended business. The result of that is easily seen. They withdraw their loans, or their deposits, and D, E and F must get money to pay their notes, and they, too, go to the banks. This is the movement now going on. In the meantime, the banks had loaned a great deal of idle money to the bankers and capitalists, on collaterals, and now the banks are running after that money to pay their depositors. The whole story is told in the following paragraph, from the Cincinnati Gazette:

"TUESDAY P. M.—The money market continues in the same condition as last reported. The demand for loans is not as large or pressing as last week, but checking is heavy on the part of local depositors and country banks, while the currency which it takes to handle the heavy receipts of exchange leaves the banks in as close a condition as ever."

This is where the pressure is—not so much from borrowers, (although there are enough of them) as the checking from depositors who want their money. This will continue for a time, and it is a healthy sign, full of hope and promise.

4. Taxes. People talk about taxes as if they really were heavily taxed. This is not so. The only class of men who can say they are heavily taxed are the income payers; but as no income under \$1,000 is taxed, this is not to the mass of people at all assessed. The tax which was onerous on the labor and business of the country, was the tax on manufactures, but Congress has taken nearly all that off, and the people are relieved from about eighty millions per annum, which was levied on the industry of the country. This will be an immense relief, and we expect manufacturers everywhere to spring forward.

On the whole, we must regard the financial signs of the times as in every way encouraging. We have currency enough, and it will

now be actively employed. We anticipate a period of commercial expansion, of increased manufactures, and of general financial prosperity.

The Atlantic and Great Western Railway.

A few days since the Pittsburg papers contained brief notices of the action of the Supreme Court of this State on the application of the Atlantic and Great Western Railway Company to have the road and property restored to their management. The reports of the case did not set forth all the facts in the decree with sufficient clearness. The same action was taken in the Courts of New York and Ohio. In April, 1867, Samuel Garney and others, holders of the bonds of the A. & G. W. Railway, brought an action to recover the interest due on their bonds, and on their application General Robert B. Potter was appointed Receiver, and has since that time had charge of the road.

The company has ever since been engaged in efforts to either raise the money to pay debts, or to fund the debt, and their plan of action was submitted to the stockholders and a portion of the bondholders some weeks ago, and was published in our columns at the time. With a view to carrying out their proposition, the company, through their attorney, applied to the Courts to be restored to the possession of the railways, mortgaged estate, and property now in possession of the Receiver. The Courts after hearing the counsel for the parties in interest, decreed that the property may be restored to the company, if no objections are made by the bondholders, on payment of all debts and liabilities incurred by the Receiver, and of his commissions as heretofore fixed by the Courts, together with other expenses incurred prior to the transfer of the property to the company, and after compliance with these and other conditions of the decree, and upon receiving the consent of the plaintiffs (bondholders) by their attorney, Clarkson N. Potter, Esq., and not otherwise, at any time before the 1st day of April, 1869, the Receiver is to restore the railways and other property to the company. All costs, expenses and charges connected with this action are to be paid by the company before the transfer is made, and it is ordered that there shall be no interference with the Receiver until all the considerations of the decree are complied with, and this order is not to prejudice the right of any bondholder, not represented by plaintiffs' counsel, to intervene by application to Court to protect his rights in the mortgaged estate, &c. This briefly states all the material points of action in the Court.

The exact amount of the debts that must be paid or adjusted in compliance with the decree we are unable to state, but they are quite large. Most of the bondholders have agreed upon a plan to fund the interest debt by an issue of fourth mortgage bonds. It is stated that the company are confident of being able to comply with the provisions of the decree within the time specified, or possibly by the 1st of January. Of course this depends upon their success in funding the interest debt and raising money to liquidate the debts incurred by the Receiver.

In this connection it will not be deemed improper to refer to the able management of the Receiver and his assistants since the road passed out of the hands of the company. At the time General Potter took charge of affairs the road was in a horrible condition, unsafe for passenger traffic, and without the facilities

to meet the demands of shippers.

The first thing to be done was to put the line in a condition to be operated advantageously. This was done as speedily as possible, additions were made to the rolling stock, and the work on necessary repair shops were completed, so that now the entire line is worked with as much promptness and safety as any railway in America, and accidents and delays are almost unknown. The work has been prosecuted in the face of many discouraging difficulties, and the most rigid economy has been observed. The improvements have been of the most substantial character, and we have no hesitation in saying that with the prudence, sagacity and economy exercised by the present management, the original cost of the road would not have exceeded one-half the amount expended, and this would have been one of the best and most thoroughly equipped railways in America.

As it is, General Potter, ably assisted by Superintendent Rucker, has put the line in splendid condition, at a cost far below all ordinary estimates, and if the road should remain in present hands, there is little doubt that the interest on the bonds may be resumed next spring, as intimated by the Receiver in his annual report. All parties must agree that as a railroad manager General Potter has displayed rare ability, and bids fair to win in that field of duty a reputation as honorable as that won by him in the stirring times when he earned renown on the battlefield.—*Meadville Rep.*, Nov. 23.

The great misfortunes of the Atlantic and Great Western Railway, did not have their origin in this country, nor in the actual cost of construction. It was built at as little cost as any road, through a similar route, either in this country or elsewhere. It was the "water cure" process that its stock and securities were subjected to by its London nurses, that created all its "after troubles. The remarks of the *Republican* relative to the condition of the road, are but a just tribute to the ability, perseverance and good judgment of General POTTER, Supt. RUCKER and their able assistants. We doubt very much, should the owners succeed in getting the control of their property, if they will be able to improve on the management of the gentlemen now acting under the direction of Court.

A New R. R. Thoroughfare

"Indianapolis offers a subscription of sixty-five thousand dollars to build a railroad from that city to the pine regions of Michigan. The route is by way of Warsaw and Goshen."

The above item we clip from an exchange. When considered in its intended purpose, it is a matter of deep importance to the citizens of this village. There is a railroad running from Indianapolis to Peru, in the direction of White Pigeon and Kalamazoo, and the application which Indianapolis intends to make of her subscription is to continue that road in this direction, and by this route reach the "pine regions of Michigan."

On the subject of this proposed thoroughfare, some of the parties interested, in the northern part of the route, met at Goshen, Indiana, the past week, and preliminary arrangements were made, which, we believe, are destined at no very distant day to lead to and secure a great railroad thoroughfare from

Grand rapids *via* Allegan, Kalamazoo, White Pigeon, Goshen, Warsaw, and Peru to Indianapolis, and thence to Louisville, Kentucky.

Commencing at Grand Rapids we have the Kalamazoo, Allegan and Grand Rapids Railroad, which covers fifty-six miles of the route; and fifteen miles of this road, extending from Kalamazoo to Otsego, are just recently laid and put in running condition; and the remaining forty-one miles are to be finished this year.

Then the Kalamazoo and White Pigeon Railroad—thirty seven miles, is now in first-rate running order.

From White Pigeon to the Indiana State line, three miles, there is no organization. The ground is almost a dead level, and this part can be easily provided for.

On the next seventy-seven miles in Indiana, extending from the State line to Peru, there are two organizations—one from Peru to Goshen, and the other from Goshen to the State line. Of these Dr. E. W. H. Ellis, of Goshen, is President. A large amount of means has already been subscribed, and it is believed the subscriptions can soon be increased to a sufficient amount to prepare the road-bed for the rails.

From Peru to Indianapolis, and from Indianapolis to Louisville there are now running railroads.

Very ample arrangements are made for completing the road between Allegan and Grand Rapids. We understand that several hundred thousand dollars of the first mortgage bonds have been sold at 90 cents on the dollar, and offers have been made to take the whole at that figure, but the managers hold them for higher prices. This part of the road is to be completed before the end of *Anno Domini*, 1868.

We understand that our townsman, Mr. R. Gardner, will put his energy into the work of consummating and perfecting this great enterprise. He is aided in this undertaking by his present associates in the railroad business. When all these are added to the strength of those interested in Indiana, there can be no doubt of the success of the project.

One of Mr. Gardner's engineers is to go to Indiana the next week to re-survey and locate the line from White Pigeon southwardly.—*Kalamazoo Gazette*.

Louisville, New Albany & Chicago Railroad.

There is a rumor current that the Louisville, New Albany & Chicago Railroad is to be sold under the foreclosure of a mortgage in favor of the bondholders of the first and second issue.

The original stock of this Company has been virtually lost for a number of years, and the third mortgage bonds have been considered equally worthless. The road has been, by order of Court, in the hands of Trustees, in behalf of the bondholders; and the present rumor is that the whole concern is to be sold for the benefit of its creditors.

It is not probable that a sufficient sum can be realized to satisfy the first and second mortgage bonds, with accrued unpaid interest, so that the stock, preferred stock, and third mortgage bonds will hardly be worth the paper on which they are printed.

The history of this road, from its beginning to the present time, is one of a struggle with debt and with poverty, so that the equipment of it as a first-class railway, as is demanded by the people along the line, and others

whose business brings them in contact with it, is simply an impossibility. The manner in which the business of the road has been conducted, has often been freely and severely criticised, and its managers denounced as incapable for the trust.

It is a pleasant fact, however, to record that nearly every one of the chief officers of this much abused line is now occupying a place of responsibility and trust in connection with other more successful railways, thus showing that they were not to blame for the mismanagement of this one.

We cordially hope that whoever may be the purchasers of the road, they will have capital sufficient to equip and run it as other roads are run, so as to secure the co-operation and good will of the people who live on the route or who may pass over it.

When the sale comes off, we may expect a somewhat lively competition in the purchase. The first bidder will be the Michigan Central, the second, the Indianapolis, Cincinnati & Lafayette; the third, the Jeffersonville & Indianapolis; the fourth, the Ohio & Mississippi interest, and after these that class of capitalists who are always on hand when a bargain is to be had.

The interests of the Michigan Central in the line consist in the carrying trade eastward from New Albany as the point of contact with the Ohio river, and the opening of a new and shorter line for *St. Louis* business and the invaluable coal of Indiana, by putting in the link of fifty miles from Crawfordsville via Rockville to Paris. Furthermore, the Michigan Central is using the franchises of the Louisville, New Albany & Chicago charter from Buffalo to Chicago; or, rather, that portion of this distance which lies in the limits of the State of Indiana.

The immense trade which the Michigan Central could control with this line in the manner indicated, renders it probable that they will compete sharply for the purchase.

The second bidder will be the Indianapolis, Cincinnati & Lafayette Company.

It has been one of the mistakes of the old management not to allow a fair and liberal arrangement at Lafayette for the through business from Chicago to Cincinnati.

Indeed, the Lafayette connection has always been the most curious and crotchety affair—very much on the dog-in-the-manger principle—for the L. N. A. & C. Road never has made any connections at that point with their own line south, always compelling passengers from Louisville, New Albany, and other points along the line, to wait from three to twelve hours before they could continue their journey northward to Michigan City, or, on the other hand, have placed every obstruction possible in the way of the Jeffersonville and Cincinnati lines from making close connections at the same point.

The mistake has been, and is, that the management of the L. N. A. & C. insists on doing Chicago business via Michigan City, whereas the interest of the Cincinnati line is to secure a route from Cincinnati via Indianapolis, Lafayette, or either the Columbus & Chicago at their crossing, or the Pittsburg, Fort Wayne & Chicago at theirs, direct to Chicago, thus opening up a short and desirable route between these two important commercial centers.

Should the Michigan Central Road secure this line, the old policy will be continued, but if the Indianapolis & Cincinnati Company secure it, the new and better policy for Cincinnati business will be inaugurated.

Should the efforts to purchase the L. N. A.

& C. Road fail, the Indianapolis & Cincinnati Company will construct a new line northwest from Lafayette, to intersect with the projected line from Danville, Illinois, to Chicago, and thus secure what they have hitherto failed to do, a good and direct route to the great city of the lakes.

The third bidder will be the Jeffersonville line—whose interest consists in securing control of all railroad freight at the Falls of the Ohio that is destined northward, and also completing their own line to Chicago, which now terminates at Indianapolis.

The fourth bidder will be the Ohio & Mississippi interest—for the purpose, mainly, of securing a direct line under their own control from Mitchell to New Albany, and perhaps the carrying of some freight from St. Louis and Louisville to the lakes. The main interest, however, of this Company, is from Mitchell to New Albany.

A careful examination of these different interests will develop the further fact that the rivalry can be reduced properly to two—first, the Michigan Central and the Ohio & Mississippi can unite their interests, and, second, the Cincinnati & Jeffersonville can unite theirs. These combinations will probably be made, and the railway competition for the purchase will be limited ostensibly to the Michigan Central and the Indianapolis & Cincinnati.

Should the former secure it, the new line to Paris and St. Louis would doubtless be secured speedily, and if the latter is successful, a more direct and reliable route will be opened from Cincinnati and Louisville to Chicago.

After these come the capitalists not in connection with any of the above interests, who will seek to secure the road at such a price that it will be a good investment of capital. The location of the road is through a tolerably good section of Indiana, which must always use this as the only outlet for business; and, by means of spurs to the coal regions, a large increase of traffic can easily be secured. The charter of the road is the most liberal ever granted to any corporation in the State, and the stock, placed at a reasonable cost, would doubtless pay a handsome profit on the investment.—*Gazette*

British Speculators—Sir Morton Peto and George Hudson.

[From the American Exchange and Review.]

After the dissolution of the firm of "Peto & Grissell," Sir Morton Peto mainly turned his attention to the formation of railways, and at first and for many years, all went well with him. He constructed a majority of the leading railways of England and the large railway of Canada. The Norwegian railways were likewise constructed by him, and in addition to a large sum of money, he received the honor of being made a member of the ancient order of the Danebrog. The Grand Trunk was his next erection, in 1854. In the following year he was made a baronet for erecting the celebrated railway at Balaklava, a structure which, though small—not exceeding three or four miles in length—contributed more than aught else to the capture of Sebastopol. Peto resigned his seat in Parliament, to which he had been elected as member for the city of Norwich in 1847, for the purpose of going out to the Crimea to accelerate the structure, and great was the acclamation raised when the work was completed in the course of a few weeks.

Sir Morton Peto was now at the height of his reputation, and it must be owned he was not unworthy of it. He lavished his immense wealth generously, but a reverse was in prospect. The London and Dover Railway had now extended to most gigantic proportions, and Sir Morton Peto was deeply involved in it. The bridge across the Thames, and the subsequent extension of the line for upwards of a mile through a valuable portion of the British metropolis, had cost the proprietors fully a million of money, and they had, moreover, purchased up all the competing lines at an expense incredible. Their bills, to the extent of five or six millions sterling, were in the market, and the firm of Sir Samuel was responsible for the whole of them. He was moreover deeply involved in the British branches of the Credit Foncier and Credit Mobilier, and when the crash in the English money market came, all went down. A general feeling of regret was evinced when it was announced that the great firm of Peto, Betts & Co. had succumbed to the storm which swept off many other houses whose character and credit had hitherto been unimpeachable.

As of kindred or rather contrasted interest in railway history with Sir Samuel Morton Peto, we present the name of

GEORGE HUDSON.

Hudson was born in the year 1800, and was the son of a shopkeeper in the ancient English cathedral city of York, where he for many years carried on business as a linen-draper. Having about the year 1844, however, been bequeathed the sum of £30,000 sterling by an uncle, he invested it in the stock of the North Midland Railway, and the result soon became so unexpectedly advantageous that he threw tapes and tape measures to the winds and invested his whole fortune in railway speculations. The returns were incredible. In a short time he was more than an English millionaire, and his adventurous spirit expanded as he rose. We soon find him chairman not only of the North Midland, but also of the Eastern counties, the York, Newcastle, and Berwick railways—all of them important undertakings—but of the Sunderland Stock Company, whose stock he inflated with such marvellous rapidity that the grateful citizens next year elected him as their parliamentary representative. Everything he touched seemed at once to turn into gold. The most hopeless and preposterous railway scheme immediately rose into unheard-of premiums under his auspices. Half of England was instantly crossed by imaginary railways in every direction, and the whole of it was soon monopolized for similar erections. The continent of Europe was in like manner laid hold of. France, Italy, Norway, Spain, so proverbial for its castles in the air, were all to be covered with railways. Had he proposed a route by means of locomotives to the moon, George would at once have found subscribers.

Such a genius as this was not destined to linger in the provinces. Hudson was speedily summoned to London, where a great man had previously prepared the way for him. "If I want to go to Exeter," (a distance of about 200 miles) said Sir Robert Peel, who invariably liked to chime in with the times, "I am not to be taken round twenty miles; I want to go direct, straight as the crow flies." And henceforth the cry for direct lines arose in every quarter. Hudson was not the man to lose sight of the opportunity. He accordingly, on his first appearance in the British metropolis, advocated new and direct lines in every quar-

ter. A select band of British speculators applauded and endorsed every word he uttered. Such eloquence—though his voice was husky, his utterance indistinct, and his language ungrammatical—was never heard, they declared, as that which promised so rapidly to fill their pockets. George, like Byron, accordingly at once became famous, and London next morning hailed him as the "Railway King."

Hudson was not slow to profit by his fortune. In a short time applications, or rather entreaties, flocked in upon him from every direction. He could get £1,000 at any moment by honoring a railway meeting with his presence; he could get £100,000 in shares by taking any railway scheme under his patronage. The most visionary or villainous undertaking immediately flew up ten or twelve per cent. if he consented to become its chairman, and George soon found himself in possession of several millions sterling. The highest nobility in the country sought his company or courted his alliance. A marchioness was one of his prime disciples, and a duke besought the hand of George's daughter for his son.

What was termed the railway mania in England rose rapidly to its zenith. All classes rushed to invest in railway schemes. Peers and often peeresses hurried in their carriages to the railway exchange, and "Jeames of Buckley Square" speculated in his own name as well as in that of "Mary h'Anne" and the other domestics. Professional men forsook their usual vocations, and even actors, a class not much given to speculation, each day hastened into the city. Lawyers threw aside their briefs, physicians neglected their patients, merchants abandoned their counting-houses and their usual haunts of commerce to amass fancied fortunes in an hour or two at the stock exchange.

The fever of speculation was kept up by Mr. Hudson's peculiar method of "making things pleasant," as the phrase was, or, in other words, "cooking his accounts." In whatsoever scheme he embarked there was no such word as fail. If any existing railway did not pay, for instance, there was no admission of the fact; a dividend of eight or ten per cent was immediately declared, and this amount taken out of the capital. Should one *in prospectu* not be likely to succeed, the market was immediately "rigged," and the bubble brought out at five per cent. premium at least. Some of the most respectable or *quasi* respectable houses in the city aided in these frauds.

But the day of reckoning came at last. In less than six months all these schemes were found to be delusive. London aldermen and others accordingly "waddled" to the continent to avoid paying up their liabilities, and other "lame ducks" endeavored to evade responsibility by declaring themselves insane. Prince Albert, who never liked Hudson, gave the finishing blow to that adventurer's reputation by causing a couple of stags to be constructed in stone in front of a gigantically-elevated mansion, which the Railway King had erected at one of the gates in Hyde Park, the name of that animal being opprobiously bestowed upon all railway speculators who were not supposed to have money sufficient to defray their liabilities. Hudson, however, discharged his, for his territorial estates were immediately brought to the hammer, and he was quickly reduced to his original patrimonial inheritance of little more than £30,000. An attempt was made to deprive him even of this. He, however, fought stoutly and defended himself desperately. After much litigation and many vicissitudes, during which he was frequently in jail, the Railway King

was at last declared to be entitled to this modicum of his fortune, and upon it he retired to obscurity in Paris, where, it is said, Spanish railroads engaged his attention.

ITEMS.

—The County Commissioners of Douglas county, Kansas, have issued to the Agent of the Leavenworth, Lawrence & Galveston Railroad Company a single bond for \$300,000, with thirty coupons for \$1,000 each. The County Clerk and the County Treasurer refused to sign or to seal the bond, and the Treasurer of the railroad company would not accept it. It is claimed that the bond is without legal effect, and a strong effort will be made to prevent the issue of any bonds to the company as now organized.—*West. R. R. Gazette.*

—It is rumored in St. Louis that the Atlantic & Pacific and Union Pacific, Eastern Division, which opposed each other last winter in obtaining legislative indorsement for Congressional subsidies, each denying an exclusive franchise to the Pacific via Albuquerque, have united forces, and will attempt to engineer through Congress, after first receiving legislative indorsement of Missouri and Kansas, a mammoth subsidy. The coalition is upon a basis that the Union Pacific, Eastern Division, shall have a road to Denver, with branches to Albuquerque, and the Atlantic & Pacific from Fort Scott, Kansas, to the Pacific, via Albuquerque, the companies in effect to be consolidated, though worked under respective charters and nominally different boards. This combination will have great strength at the East, the Atlantic and Pacific being principally owned in Boston, and the Union Pacific, Eastern Division, in Philadelphia.—*West. R. R. Gazette.*

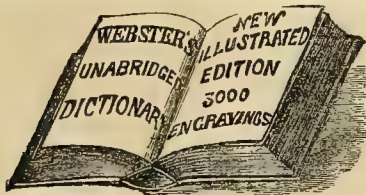
—The ninth section of the act of July 1, 1862, authorized the Union Pacific Railway, Eastern Division, to construct a railroad and telegraph line from the Missouri river to connect with the Union Pacific Railway at the one hundredth meridian, and that the route in Kansas, west of Fort Riley, be subject to the approval of the President of the United States, to be determined by him on actual survey. By the first section of the supplemental act of July 3, 1866, the company received the privilege of changing their route, but were restricted to the same amount of Government bonds they would have been entitled to by the original route. This change of route rendered it necessary that the exact distance from Fort Riley to the one hundredth meridian should be ascertained in order to determine what amount of bonds the company would be entitled to; and Major Howell, of the United States army, was in June last assigned to the duty of making the survey. Major Howell has completed the survey, and finds the distance to be a fraction over 253 miles. The distance from the initial point on the Missouri river to Fort Riley is 135 miles. The survey has been approved by the President, who has ordered that the distance for which the company may become entitled to the subsidy of the Government on the completion of its railroad and telegraph line, is a fraction over 393 miles.—*West. R. R. Gazette.*

—The Philadelphia & Reading Railroad has a rolling mill at Reading, which has been in operation about eight months. The mill-house is 413 feet in length by 93 feet in width, with a spacious wing projecting from

one side. There are twelve puddling furnaces, eight heating furnaces, and two reheating furnaces. The rails rolled are of three weights, 64 pounds, 62 pounds, and 56 pounds per yard, for use in localities according to character of traffic, the heavy rail in main track, the light rail on branches where the trains are smallest. The rails rolled contain about one-third part new iron. The present capacity of the establishment is about 1,000 tons per month.

—According to the Quartermaster General's report, transportation for the United States over the railroads other than the Pacific lines, has been as follows: Ninety thousand tons of freight, at a cost of \$28,922,100, and forty thousand persons, at a cost of \$48,412,200. The Union Pacific transported, from the 30th of June, 1867, to the 30th of September, 1868, about 21,777 tons of munitions of war, and 7,415 persons, at a cost of \$1,070,655. The Union Pacific, Eastern Division, for the same time, 15,570 tons, and 6,395 persons, at a cost of \$531,275.

—Last Thursday night the Board of Directors of the Fort Wayne, Jackson and Saginaw Railroad elected as officers of said company, A. H. Hamilton, President; S. Carey Evans, Treasurer, and Henry J. Rudisill, Secretary, who duly subscribed to the oath of office. The President was instructed to procure books, to be opened for subscription, in Steuben and DeKalb Counties, with authority to secure a competent corps of engineers, to make surveys, preparatory to the location of the road, as soon as a sufficient amount has been subscribed, and to secure the right of way, the necessary depot grounds, &c., for the same. A committee of five was appointed to report, at the next meeting, what reliance can be placed on the sale of the first mortgage bonds of the company, indorsed by the Jackson, Lansing and Saginaw Railroad Company, in procuring means for ironing and the fair equipment of the rolling stock for the road.



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C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis, Ind.
Aug. 2, 1886.]

THE STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same time as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST RIDGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6:15am.....	7:10pm
Dayton.....	8:35 ".....	9:30 "
Arrive West Salem.....	1:50pm.....	4:53am
" Leavittsburg.....	4:55 ".....	7:35 "
" Meadville.....	7:35 ".....	11:10 "
" Susquehanna.....	7:48am.....	11:29pm
" Paterson.....	2:25pm.....	6:03am
" New York.....	3:15 ".....	7:00 "
" Boston.....	5:45am.....	4:45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

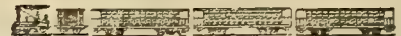
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at north side corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers from the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7:00 A. M.	9:10 A. M.
Springfield & St. Joseph Ex.....	12:00 P. M.	4:30 P. M.
St. Louis & Chicago Ex.....	4:55 P. M.	12:15 A. M.

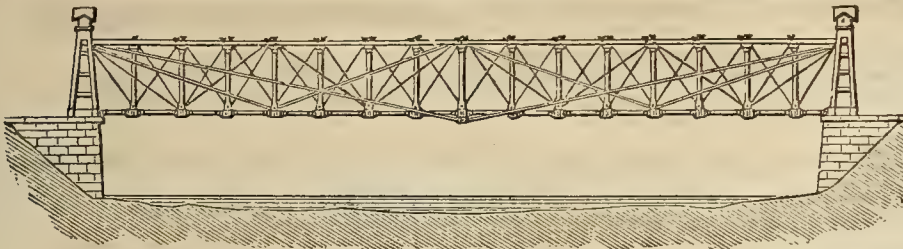
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5:15 P. M.	5:05 A. M.
Harrison Accommodation.....	10:10 A. M.	2:25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pairs of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and all work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

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STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.

330 Main Street, Memphis, Tenn.

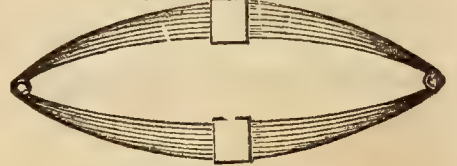
PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS.

FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
 Baltimore.*

L. WILSON, Master of Transportation.
 M. COLE, General Ticket Agent.
 O. W. BROWN, General Passenger Agent. } Dec. '87.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Rich-		
mond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

JANUARY 5th, 1868.

*Cincinnati to St. Louis Without
 Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
 J. W. CONLOGUE,
 General Superintendent.

Best Route to St. Louis and Chicago**INDIANAPOLIS,
CINCINNATI**

—AND—

LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

**ST. LOUIS,
CAIRO,
CHICAGO,**

Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph		
Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday		
instead of Saturday night.....	8.50 pm	6.15 am
No change of cars between Cincinnati, St. Louis and Chicago.		
Elegant Sleeping Cars on all night trains.		

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.

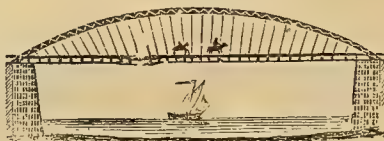
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
 Boston, Mass.

EDWIN J. HORNER,

Successor to

MCDANIEL & HORNER,*Locomotive and Railroad***CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

**THE SCHENECTADY
LOCOMOTIVE WORKS,**

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

**COAL OR WOOD BURNING
LOCOMOTIVE ENGINES**

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
 THOS. T. TASKER, JR., S. P. M. TASKER
 HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore**RAILROAD!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON, } Editors

CINCINNATI:

THURSDAY, DECEMBER 3, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
Onesquare, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:40 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connerville, Cambridge City and Indianapolis Mail.....	6:15 A. M.	10:20 A. M.
Connerville, Cambridge City and Indianapolis Express.....	5:30 P. M.	7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	9:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 P. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Our Pacific Railways.

Their Commercial and Political Effect on the World.

The following very glowing picture of the results of the construction of Pacific Railways, which we copy from that leading daily Journal of this country, the *New York Herald*, is drawn with the skill of a master. While the *Herald* but justly portrays in rich and gorgeous colors the wealth and "riches of the Indies" that is ready to "flow through our gates," the cosmopolitan influences of these great "highways for the nations,"—the suppression of barbarism and the advancement of the highest state of human civilization—Christianity—yet it has omitted to show that last, though not least, the vast benefits that will accrue to the laboring millions of our own land. The immense unoccupied territory of the United States, amounting to 1,834,998,400 acres, is almost entirely inaccessible, and of as little actual value as if situated in the Moon. In the purchase of Alaska, our government paid for 369,539,600 acres \$7,500,000, or about 2½ cents per acre. Now, by the construction of railroads through this unoccupied territory, a large portion of it will become available for civilization, the field of labor be expanded, and that which is valueless to the government and useless to the people will become the happy homes of millions of freemen. The interest of the laboring man—the mechanic, the agriculturist and the day laborer,—will be promoted more by the construction of the railroads across the continent, than by any other measure that has ever occupied the attention of the American People. And yet the Government loses nothing by it. The Government price for land is \$1 25 per acre; but for the reserve lands—the alternate sections—of railroad grants, the Government charges \$2 50 per acre. Surely nothing is given away on the part of the Government by this process. And the laboring man—the voter—to whom demagogues are constantly appealing with the cry of monopoly, land robbery and stealing the heritage of the poor—the laboring man, secures a domain from the wilderness, that is in the same sense as much of an acquisition to the expansion of the field of industry, as if the same extent of territory had been reclaimed from the sea.

This is a theme worthy the pen of the great "Commoner"—the *Herald*—to instruct the millions of its readers in reference to the vast interest which the people have in the construction of the Pacific Railroads, so that it may react upon Congress and induce them to wisely push forward the column of civilization until the "earth is subdued" and made fit for the habitation of man. This may be done justly and liberally, and avoid the errors

that have been committed in previous subsidies, besides furnishing ample security to the Government against any possibility of loss.

The *Herald* says:

The first great period of the world's commercial history ended when Vasco de Gama doubled the Cape of Good Hope in 1498. Previous to this date the trade of India with Europe amounted to a few thousand tons annually, which trade found its way at an immense cost of time and labor across the Persian Empire, Asiatic Turkey and Arabia. These countries then stood between the two commercial termini of the world—India and the Mediterranean. India then, already old and stagnant, scarcely felt the touch of this traffic. Light as it was, however, it gave civilization to the Mediterranean shores. Tyre became to the great inland sea what San Francisco is now to the Pacific Ocean. The new trade gave a wonderful impulse, and was pregnant with opulent cities, which it scattered broadcast over the Persian Empire. The wealth that was poured into Syria produced an extraordinary advancement in the arts, sciences and civilization. It built up the famed Jerusalem, and gave it such wealth and architectural splendor that the tide of war surged around its walls in more sieges than ever fell to the lot of any other city in history. As the trade developed itself Alexandria sprang in greatness and extended its civilization to Greece, Rome, Carthage, and then Venice, felt its impulse, and in turn dictated to the world.

The Mediterranean commercial cities were in their full tide of splendor at the end of the fifteenth century. They had received their civilization, their religion, their arts and sciences from the interchange of products. These gave a forward impulse, enlarged the ideas of statesmen and of people, enabled them to appreciate art, forced inventive talent into action, built ships suited to a limited navigation, and, in general, gave the highest brain growth of that period. But the whole development was narrow. It was the caravan, the oar-propelled vessel and the pathway of animal traffic.

Now the world, entering upon the sixteenth century, faces about and breathes westward. The Mediterranean staggers under three reeling blows—that of Columbus, of Vasco de Gama and of Magellan. France, Portugal, Spain and England, full on the Western European confine, and find employment for their semi-civilized people; cities spring into existence; the shipyards give a new naval architecture suited to the stormy Atlantic; the wealth of the Indies pours round the Cape of Good Hope; grass grows in the deep caravan ruts of the Persian Empire, of Arabia and of Syria; their cities disappear with the trade that gave them birth. A new civilization, born of the times, produces an intense mental impulse in Europe. The world has swelled out and requires more brains. India now feels the western touch; ordinary products mingle with the rare, and trade takes immense proportions.

The tide sweeps on for three centuries; the commercial nations roll their surplus population into the New World; steamboats, railroads and telegraphs force the wildest commercial projects into realities, and progress in full tension awaits a further development in a third and culminating period. The third period will date from the completion of the Pacific Railroad. Four hundred and sixty thousand tons of freight per year are ready at the linking of its rails to pass across the

continent. England awaits its completion to change her Australian steamship line from Panama, and make Australia tributary to San Francisco. France and Holland will communicate by this route with their Indian colonies. The advantages of our geographical position make it as inevitable as fate that the whole world must pay tribute to North America. This tribute will, however, be but a small tax upon the immense advantages which it will reap in exchange. It may be said that the energy of the world here concentrated is working for the general good of mankind, and not with the simple idea of national aggrandizement. In building our Pacific Railroads we shall do more for the dormant masses of Asia than has been done for them in the last three thousand years. We shall draw upon them, and this will force them to produce. We shall have a closer contract with them, for their doors now face ours. We shall thus be able to exchange ideas, resulting in great mental as well as material gain to both. The capacity of Asia for trade, virtually untouched as yet, will now take new forms and receive new impulses by being placed in such immediate relationship with the whole civilized world. It is impossible to calculate the effect of the influences thus brought to bear on Eastern Asia. Old dynasties must go down, ideas of religion and of life be completely changed and the Asiatic mind take new and strange directions. Europe, conforming to the changes wrought, must recognize in the United States the favored land destined to deal civilization to the nations of the earth.

With our Pacific Railroads we shall make the world homogeneous, cut down national barriers, break the marked distinctiveness of races, crush national jealousies, teach one half of mankind what the other half is, show to Asia that Europe has valuable ideas, and *vice versa*, and that either possesses elements of civilization foreign to the other. We shall make ourselves the schoolmaster of the world, and while we dispense its blessings, shall teach the best method of making use of them.

For ourselves, our railways to the Pacific will so make us the highway of nations that the very interest taken in uninterrupted communication across our country will be our best safeguard against unbroken nationality. If, further, we would estimate the natural result of our means of communication upon our future wealth, commerce and civilization, we have only to look at the results upon Europe of the first two periods of imperfect commercial interchange to feel that America strides onward to a great destiny—that to be an American citizen is greater than to be a king.

KENTUCKY AND VIRGINIA RAILROAD.—The *Lynchburg Virginian*, referring to the proposed railroad from Louisville, by Harrodsburg, to Virginia, says: This route would include the valley of the New river, and connect the Kentucky road with our Virginia and Tennessee road, at or near Central depot, in Montgomery county. It would furnish almost an air line from Louisville via Lynchburg to Norfolk, avoiding the great detour via Cumberland Gap and Bristol, and develop a rich and productive country, now wholly without railroads. It would be the nearest route for Louisville to the sea that could be opened, and would make our Southside line of railroads the great highway of commerce between the West and the East, and Norfolk the golden horn through which it would be poured.

THE INDIAN PROBLEM.

Hopeful Conversion of the Cin. Times.

How the Milk Got in the Cocoa Nut.

In our issue of two weeks ago we published a little extract from our neighbor, the *Cincinnati Daily Times*, indicating a most "hopeful change" of mind by the curt advice to General Sheridan to "perform a little surgical operation on the Indians," accompanied with instructions to "Cut away Phil." We are pleased to see that our neighbor continues in "well doing," and thus far manifests no indications of "backsliding." Indeed, like all "new converts," the *Times* is most extreme in its views, and extravagantly enthusiastic in its advocacy of the radical dogma of extermination of the "romantic scalp-peelers." The following leading editorial from the *Times* of December 1, shows with what warmth this "humane" and "Christian" policy of dealing with the "gentle sons of the forest" is commended:

"YAHOO.

"The Indian peace men, peppered and salted with a sprinkling of war-policy in the person of Tecumseh Sherman, will bring an earnest effort to bear on Congress for some radical and comprehensive legislation toward a final settlement of the romantic scalp-peelers.

"The peace people show by figures that it has cost the country eight hundred million dollars to devil the Indians and be bedeviled by them, and they think it is now time to save up the little remnant of red men by some more economical, not to say angelical, plan.

"Sheridan will probably have tried some surgery before the Congressional homeopathy can be brought into requisition. This, however, ought to hurry up the legislative, poultice; and the Indian business should forthwith be prosecuted to completion with all the peace power or war power, or both powers combined, of the government. For the republic of the world, a nation of forty million people, to go on wrangling through another generation with a little quarter of a million of savages, is a farce that the civilized world ought not to tolerate."

We could not have said it better ourselves, and although we have not yet heard whether the Editor of the *Times* "is a very pious man," or not, we entertain the most encouraging hopes of him, and doubt not if he can only continue steadfast during a short period of "probation," that we shall be prepared to welcome him as one of "sound faith" on the question of the proper treatment of "Mr. Lo."

Now, let us look for a moment what an expensive luxury "Mr. Lo." has been to us. It is useful to look over the ledger, occasionally, and see where the outcome is to be. We copy from the *Gazette*, of November 30, the following item of—

"COST OF INDIAN WARS.

"A compilation from official records regarding the Indian wars, shows the cost of the various wars of the past forty years to have been as follows: Black Hawk war, 400 lives and \$5,000,000; Seminole's war, 1,500 lives and \$100,000,000, only 1,500 of the Indians being warriors. A war with the Creeks and Cherokees, about the same time, cost \$1,000,000. The Sioux war of 1852 cost 300 lives and \$10,000,000. The war of 1864 cost 1,000 lives and \$60,000,000. The Cheyenne war of 1867, 300 lives and about \$12,000,000. The Indian troubles on the Pacific slope for the last twenty years about \$300,000,000. Three campaigns against the Navajoes, \$30,000,000. The whole troubles in New Mexico, of which the last item forms a part, \$150,000,000. Members of the Peace Commission will meet here in a short time and urge upon Congress to pass all the measures necessary to carry out the policy it has adopted."

This, to say the least, is interesting to taxpayers, but it is a necessary evil.

It is really gratifying to see how elegantly General SHERIDAN is carrying out the programme. The following is his official report of the first scene. "Cut away Phil," the whole country will back you:

"IN THE FIELD, DEPOT OF THE N. CANADIAN RIVER, AT THE JUNC'N OF BEAVER CREEK, INDIAN TER., November 29, 1868. }

"To Brevet Maj. Gen. W. A. Nichols, A. A. G. Mil. Div. of the Missouri:

"GENERAL: I have the honor to report, for information of the Lieutenant General, the following operations of General Custer's command: On November 23, I ordered him to proceed with eleven companies of his regiment, the Seventh Cavalry, in a southerly direction toward the Antelope Hills, in search of hostile Indians.

"Our loss was Major Elliott, Captain Hamilton and nineteen enlisted men killed; Bt. Lt. Col. Barnitz, badly wounded; Bt. Lt. Col. J. W. Custer, Second Lt. T. Z. March and eleven enlisted men wounded.

"He at once curtailed his wagons and followed in pursuit over to the headwaters of the Washita, thence down that stream, and on the morning of the 27th surprised the camp of Black Kettle, and, after a desperate fight, in which Black Kettle was assisted by the Arrapahoes, under Little Raven, and the Kiowas, under Santanta, captured the entire camp, killing the Chief, Black Kettle, and 102 warriors, whose bodies were left on the field. All their stock, ammunition, arms, lodges, robes, and fifty-three women and their children, were captured.

"On the 26th he struck the trail of a war party of Black Kettle's band, returning from the North, near where the eastern line of the Panhandle of Texas crossed the main Canadian.

"Little Raven's band of Arrapahoes and Santanta's band of Mocoas were encamped six miles below Black Kettle's camp. About eight or nine hundred of the animals captured were shot, and the balance kept for military purposes.

"The highest credit is due to General Custer and his command. They started in a furious snow storm, and traveled all the while in snow about twelve inches deep. Black Kettle's and Little Raven's families are among the prisoners.

"It was Black Kettle's band who commit-

ted the first depredation on the Saline and Solomon rivers, in Kansas.

"The Kansas regiment has just come in. They missed the trail and had to struggle in the snow storm, the horses suffering much in flesh, and men living on buffalo meat and other game for eight days. We will soon have them in good condition.

"If we can get one or two more good blows there will be no more Indian troubles in my department. We will be pinched in ability to supply, and nature will present many difficulties in our winter operations, but we have stout hearts and will do our best.

"Two white children were recaptured; one white woman and one boy ten years old were brutally murdered by the Indian women when the attack was commenced.

"P. H. SHERIDAN,

"Major General Commanding."

Perhaps we have already said too much on this subject, but it is one that is in the way of progress, and, to keep our promise in the heading of this article, we are constrained to make another extract. Evidently

"God moves in a mysterious way
His wonders to perform."

And although it is not for us to question the instrumentalities he makes use of in converting the "sinner from the error of his ways," yet it is always instructive to watch the operation. The following from the *Times* of December 2, we think clearly demonstrates "how the milk got in the cocoa nut;" and although the unsophisticated may look upon both the cause and effect with derision, yet we are positively assured that "there is rejoicing among the angels in heaven over one sinner that repenteth," and we see no reason why we should not join in the "general chorus."

Letter from Nebraska.

FRONTIER LIFE—THE GENTLE RED MAN.
Special Correspondence of the Cincinnati Times.

JENKINS' MILLS, NEBRASKA,
November 15, 1868.

I have been trying to raise clubs for your paper, but find that the people here in the West do not like your paper on one account, and that is, you have too much sympathy for the Indians. Those who have been taking your paper here have dropped it on that account. The frontiersmen out here cannot read a paper that will sympathize with the Indians. I have been raised here on the frontier, and have endured all the hardships from the Indians that any white man had ought to endure, and I cannot have the heart to raise a club or praise a paper that blames a white man for the depredations done by the Indians. We came here in 1858 and have been here ever since, and there has scarcely been a day passed but that some poor white man, woman, or child has fallen a victim to those savage redmen whom you have so much sympathy for. Men, women, and children have been killed, scalped, tomahawked, and carried away prisoners here in this settlement, and even three of my own brothers and sisters have fallen victims to those treacherous red devils.

I have seen young, promising boys and girls tomahawked and scalped in my own door yard, and I myself have been a captive for

three years, and carry old wounds made by their poisoned-pointed arrows.

Now how could I have the heart to praise your paper? So, therefore, I can raise no club here. In fact, a great many have resolved to not uphold or patronize your paper in any shape or form. Otherwise no doubt I could have got 200 subscribers here in this county.

I am very nervous to-day, as you will perceive by my writing. There have been several depredations done here in my own household within the last few days.

You will please send me one specimen copy of your paper. Yours, as ever,

W. D. J.

One more word and we have done. We must still stick to it that our method is the best, the cheapest, and will be regarded by the *outside world* as the most "humane," not to say "Christian" method of disposing of this vexed question—this "farce that the civilized world ought not to tolerate." *Build the continental railways from the Atlantic to the Pacific*, and civilization will spread over the land as "the waters cover the great deep;" the country can rely upon it, that the "red skins" will then be beyond the reach of "deviltry" or "being bedeviled"—they will pass away like a "morning mist" to the "hunting ground of their fathers."

The following letter from Gen. SHERIDAN, who "does all things well," is to the point and fully sustains our views:

HEADQUARTERS DEPT. OF MO.
FORT LEAVENWORTH, May 2, 1868.

General U. S. Grant, Comdg. Army of the United States, Washington, D. C.

GENERAL—The Kansas Branch of the Union Pacific Railroad will in a short time be completed to a point about thirty miles distant from Fort Wallace. At this point the Government subsidy ceases and the work ends.

I would respectfully urge on you the importance of the Government continuing its aid at once, as far as Fort Wallace, and afterward to Fort Lyon, C. T. The road could be finished to Fort Wallace about July 1, and to Fort Lyon in time for the spring freight to New Mexico in 1869. I know that pecuniarily it would be to the advantage of the Government to help this road; certainly as far as Fort Wallace and also to Fort Lyon. But in addition, it almost substantially ends our Indian troubles by the moral effect which it exercises over the Indian, and the facility which it gives the military in controlling them. I have not had a single depredation in my Department since I assumed command, and I have the greatest desire to maintain this peaceful condition of affairs. I have made a great deal of personal exertion by visiting nearly every post in the section of country in which the Indians were hostile last year, and in all interviews with the Indians, was lead to believe that we may be able to preserve the peace the coming summer. No one, unless he has personally visited this country, can well appreciate the great assistance, which the railroad gives to economy, severity, and effectiveness, in the administration of military affairs in this Department.

Yours truly,

P. H. SHERIDAN,
Maj. Gen. U. S. A.

Our Grainery—How to Reach It.

The Mississippi and the Lakes Connected.

Improvement of the Fox and Wisconsin Rivers.

That the North-west has been demonstrated to be the "grainery" of this country we think will not be denied. That our whole country is unsurpassed by any other on the face of the globe, of equal extent, for its economic productive capacity is no doubt true; but it is to the North-west that we look for the surplus of cereals, not only for export to foreign countries, but, also, to make up the deficiency of home consumption. To open up the North-west—this great depository of food and home market for goods—thousands of miles of railroad have been constructed, but even these have been made with reference to the great natural outlets and water communications that intersect the continent. East of the Rocky Mountains there are three great water-sheds, each having its own peculiar system of water-courses. 1st. The Atlantic slope, extending from Maine to Florida. 2d. The great Lake Basin. 3d. The waters of the Mississippi.

The two first of these systems are united by the New York series of canals, extending from Lakes Erie, Ontario and Champlain to the Hudson, by entirely artificial water-courses or canals, affording the cheapest possible means of transit for bulky or heavy freight. No one will question the fact that it was the completion of this grand system, in connection with its magnificent harbor, that has made New York City what it is—the first city of the continent—and of which our whole country is justly proud.

We learn from the *Oshkosh Times* that a convention was held at Prairie du Chien, on November 10, to "adopt measures to secure an appropriation by Congress for the improvement of the Fox and Wisconsin rivers, so as to open a navigable channel for steam and other vessels, connecting the great lakes with the Mississippi and its affluents."

During the proceedings of the convention there were many features of interest brought forward, among others a very interesting paper from A. PENFIELD, Esq., of the U. S. Treasury Department, who informs us that his uncle, the late JESSE HAWLEY, in 1807, wrote a series of articles, in which he gave the first ideas to DE WITT CLINTON of the Erie Canal, and also of this proposed connection between the waters of the Mississippi and the lakes, as well as several other important works of internal improvement. What the convention propose to ask for is stated as follows:

It is proposed that the General Government be urged to improve the navigation of the Wisconsin river from its mouth to the Portage, so that boats of five feet draft

may pass with facility in the lowest stages of water. The total distance is one hundred and eighteen miles, and the fall one hundred and sixty-nine feet.

There is an improvement on the Fox river, which is owned by the Green Bay and Mississippi Canal Company, and extends from the Portage to the mouth of the Fox, a distance of one hundred and sixty miles, and therein overcome a fall of two hundred feet.

It is understood that this company will make the navigation of the Fox river as good as the Government will make the Wisconsin, so that the project before us is narrowed down to the improvement of one hundred and eighteen miles of river navigation.

The Government has been looking into this matter, and sent General G. K. WARREN to make the necessary surveys and estimates. The following is the result of his labors:

For improving the navigation along the Wisconsin river from Portage City to its mouth, I present three plans and estimates.

FIRST PLAN.—All in river using wing dams and Long's scrapers, distance 118 miles, to secure a depth of three feet, low water navigation, \$427,749 37. Improvement to be available the second year, the money all wanted the first year. Annually thereafter \$30,000.

SECOND PLAN.—To secure four feet depth for navigation at low water, 27 miles in the river, 90 miles of canal, 70 feet wide at bottom and 80 feet at top, 24 miles being in wider places of old river bed—lock 160x30 feet; total lock lift 138 feet; sides of canal in cuts paved for use of steamboats—\$3,206,790 95. In order to finish in third year, require \$1,603,385 45 the first year, the remainder the second year, and \$50,000 annually thereafter.

THIRD PLAN.—To secure five feet navigation at low water, all to be canal, 118 miles. Canal 70 feet on bottom, 80 feet at top. Locks 160x35. Total lock lift 175 feet. Sides of canal in cuts paved to allow the use of steamboats—\$4,164,270. In order to finish in third year, will require \$2,082,130 the first year, the remainder the second, and \$60,000 annually thereafter. I would urge the adoption of the third plan if means can be raised, providing however, at first only a four foot navigation. The second plan, if adopted, should be carried out with a view to being changed to the third if ever required. The first plan, three feet navigation, may have too much inconvenience for the great amount of transportation destined for this route.

The necessity for this improvement is manifest when we consider the vastness of the trade that would seek to pass through it, and the saving that would be made in the cost of transportation by steam water lines over that on railroads and horse canals.

The following are the statistics of the eight Northwestern States in the years named:

Years.	Population.	Bushels.
1840.....	3,340,500	165,698,800
1850.....	5,403,600	310,950,300
1860.....	8,855,900	556,801,900

The Agricultural Bureau, basing its calculations on past results, makes the following approximate estimate of the cereal product of the North west for the next four decades:

Years.	Bushels.
1870.....	762,200,000
1880.....	1,219,520,000
1890.....	1,951,232,000
1900.....	3,121,970,000

In this country we consume an average of about five bushels of wheat to the inhabitant. In England it is estimated by the Mark Lane Express, that the average consumption of wheat is six bushels to the inhabitant.

It follows then, that the 556,801,900 bushels of grain raised in the eight Northwestern States in 1860, of which about 90,000,000 were wheat, at least 50,000,000 bushels of wheat were for export, and probably 3,000,000,000 of other grain. Much of it was undoubtedly converted into beef and pork, before it was sent forward.

The following table shows the comparative costs and receipts upon railroads, canals, tidal rivers and bays, and sea-borne:

Classification.	Per ton a mile. Cost, mills.	Per ton a mile. Receipts, mills.
Trans. by railroad.....	17.90	29.80
" canals.....	6.40	12.40
" rivers, steam tow 2.26		2.90
" bays.....	2.72	4.73
" ocean.....	1.26	2.50

From this statement it appears that the cost of transportation by rail is nearly three times as great as by canal, and the receipts are over twice and a half as great. It also appears that the cost by rail is eight times as great as by river, and the receipts nine times as great.

The report is full of the most interesting statistics, but our limited space forbids more extended extracts; we have given sufficient only to show the importance of the work. The next question is will it pay and who should do it?

The first part of this is distinctly answered in the report, by the savings on freight on goods and produce passing to and from the West, and the tolls that may consistently be levied on the traffic. That the improvement is national in its character is also sufficiently evident, from the fact that the Wisconsin is at times a navigable river, over which the General Government claims control; by its completion it is claimed that a first-class water route will be obtained from New York to Fort Benton, *via* river, canal, lakes and river, and that the products of the entire Northwest, now floated on the waters of the Mississippi, will, to a great extent, seek this outlet, as well as much of the traffic of the east and west lines of railroad.

The convention, among others, passed the following resolutions:

WHEREAS, Major General G. K. Warren, the engineer in charge, reports that a navigable water channel of any depth, connecting the Mississippi and Lake Michigan by way of the Wisconsin and Fox Rivers, can be provided at a moderate cost; now, therefore, be it

Resolved, That the immediate opening of said channel is demanded by the interests of the people of the entire country; that the work is one of national importance, required as a channel of commerce; as a ligament to bind together the States, ensuring national unity, and as a measure of defence in case of war.

Resolved, That the Senators and Representatives in Congress from the several States be requested to urge upon the General Government a recognition of the improvement of the Wisconsin River as a national work; and that they be further requested to ask for

and urge the Government to undertake and perfect such improvement at an early day, in such manner and by such means as Congress may direct.

Knoxville and Kentucky Railroad.

MINERAL RESOURCES ON THE LINE OF THE ROAD.

[From the Knoxville Herald.]

KNOXVILLE, TENN., Nov. 26, 1868.

General Joseph A. Mabry, President Knoxville and Kentucky Railroad Co.:

DEAR SIR: The undersigned, natives of Wales, having been engaged for many years in the manufacture of iron, both in our native country and Pennsylvania, and other portions of this country, during which time we have had charge of extensive iron works, have just returned from a trip over the line of the Knoxville and Kentucky Railroad, made for the purpose of examining into the mineral resources of that section of East Tennessee.

We have traced a very valuable vein of fossiliferous iron ore of excellent quality, extending for over ten miles in the immediate vicinity of said railroad, from Ross', in Anderson County, to Wheeler's, in Campbell County, crossing the railroad twice; and for the entire distance, so near is it, as to give every advantage for the establishment of iron-works.

This vein is cut by the tunnel at Indian Grave Gap, at which point the solid ore measures four feet in thickness, nearly, if not quite, equal in value to the celebrated ore of Lake Superior, and yielding, in our estimation, from sixty to seventy per cent. of iron.

In the immediate vicinity of said ore, we also find four remarkable beds of coal, of excellent quality, varying from two to four feet in thickness.

The result of this examination convinces us that the advantages offered for the manufacture of iron ore on the line of said railroad, for the section examined by us, extending from thirty to forty miles from the city of Knoxville, are superior to those of any point in Pennsylvania; that the iron can be made at less cost and of excellent quality; and that the quantity of both iron and coal is practically inexhaustible, being sufficient to supply a number of heavy blast furnaces for generations. Very respectfully,

DAVID RICHARDS,
J. H. JONES.

All that Mr. Richards and Mr. Jones says is undoubtedly true, and if they had gone further they could as truly have said a great deal more, both as regards the mineral resources of their own State, as well as of Kentucky, on the line of the proposed route. We will also remark that whatever is true of this side of Knoxville, would be double so when applied to the route beyond that point, down the Emory and Tennessee, at the base of the Walden's Ridge, all the way to Chattanooga. Any of it is good enough, however, to satisfy almost any body.

Congress is to meet again in December, when, we hope, it will do something toward subduing the Indians of Kansas, New Mexico and Arizona, by encouraging, in some way, the building of a railroad from the Missouri to the Colorado, for in no other way can Government so cheaply, expeditiously and thoroughly master the savages and open the country to settlement.—*Arizona Miner.*

The Bridge over the Hudson River.

It was finally determined the last week by the "Hudson Highland Suspension Bridge Company" to locate their proposed bridge over the Hudson River, at the narrow point above Peekskill Bay known as Antony's Nose. On the western bank is the site of Fort Montgomery, and that of Fort Clinton near by on the eastern side. This was the site originally contemplated, and it promises superior engineering and commercial facilities.

This company was incorporated, as our readers will remember, by the Legislature at its last session, and contains among its members such men as General E. W. Serrell, Judge Robert Cochran, DeWitt C. Littlejohn, Elliott F. Shepherd, and others engaged in forwarding and transportation business, and closely identified with the commercial interest of the country. The stock is fixed at \$2,500,000, and the usual powers of bridge companies are conferred by the act. The point selected for the site of the bridge is very feasible. It is less than twelve miles distant from Turner's Station on the Erie Railroad. There is a gap in the mountains on that route, so that the directors of the Erie Company could easily run a track eastwardly, passing the freight of the Dean Iron Mines and the Highland Mills at an easy grade, to the bridge, and thus go down on the eastern side of the Hudson River into this city. The New York, Newburgh and Oswego Midland Railroad Company could, if they desired, avail themselves of this way of getting over the Hudson River. So also the New York and Albany Railroad Company, if their road should ever be constructed, will be enabled to carry their track over the bridge at Fort Montgomery, and enter New York on the northern extremity. The act of incorporation expressly provides for giving such facilities to any "Railroad corporation whose road shall have a terminus at said bridge, or shall connect with the same or either of its avenues of approach, or shall run its trains in connection with any railroad having such terminus or connection with said avenues of approach."

These are all possible connections by means of this bridge, indicating the various ways in which it may be made available, and yet we have reason for believing that the act of incorporation was never obtained for the purpose of making connections with New York. So long as the carriage of passengers and freight through this city is surrounded with the difficulties, detention, and expense now attending it, there can be little inducement for making the upper part of this island a railroad terminus. A tunnel from one end to the other of the island would work a great change in this respect. But till that improvement is made, it is a positive disadvantage for a road to cross the Hudson. The Erie Railway, for example, finds it far easier and cheaper to lay down its freight at Jersey City, where tug boats can take it up and carry it to every side of New York, and to receive consignments from every part of this city in the same manner. The difficulties, delays, and enormous expense of moving freight through the city, are too exorbitant a tax not to be avoided wherever it is possible. The persons endeavoring to build a road on the western side of the Hudson naturally take a similar view of the subject. The freight question has been already brought to so fine a point, that any increase in the expense of transportation which this change would require, would be likely to result in a transferment of a large part of our traffic with the West from this city to other points. This

project of bridging the Hudson at Fort Montgomery, cannot therefore be regarded as an enterprise in which the city of New York has any considerable interest, and we must look elsewhere for a true explanation of the decision to which we have referred.

Nor is it a problem of very difficult solution. During the summer of last year several citizens of Putnam and Westchester counties, and residents of Connecticut formed an association, and employed engineers to survey a route from Turner's Station eastwardly to the Hudson River at or near the base of the Highlands, and onward to the Connecticut River. So favorable was the report of the survey that the Erie and New England Railroad Company was at once incorporated to construct a railroad with two divisions; the western division extending from Turner's Station to the Hudson, a distance of about eleven miles; and an eastern division extending from the Hudson to the State line in the town of North Salem. There has been a route surveyed by citizens of Connecticut from that place to Derby, on a direct line with another railroad now being constructed from Derby to New Haven. This will afford a continuous route from the Erie Railway at Turner's, in Orange County, in about a straight line to New Haven, enabling a continuance as far as Boston.

This is sufficient to demonstrate that the "Hudson Highland Suspension Bridge" to be constructed at Antony's Nose, despite the Knickerbocker traditions, is emphatically a "Yankee notion," calculated, if not primarily designed, for the benefit of the Eastern States. Indeed, the principal "corporators" of the Bridge Company are directors also of the Erie and New England Railroad, and expect to complete their track and have it in working order long before the bridge can be finished. They have anticipated this difficulty, however, by obtaining also a franchise for a ferry across the Hudson at Peekskill Landing, which can be used till the bridge is put in good condition.

The professed purpose of the men engaged in this enterprise is to procure coal by a more direct route. It is estimated that four millions of tons of coal are consumed every year in New England, and that part of this State lying east of the Hudson; and that it can be transported by this road a dollar a ton cheaper than by any other. The distance round to Hartford will be sixty miles, and about the same to New Haven, and no breaking of bulk will be required. Every person familiar with transportation can readily understand the force of this.

The principal interest then which the city of New York has in this bridge enterprise is that derived from the general benefit of improved commercial facilities. What increase of prosperity may come to Hartford, New Haven, and Boston, will, of course, indirectly help this city.

It, however, brings out in strong light the importance to this city of a system of tunnels, which shall enable us to carry from one end of the island to the other, without delay or transshipment, the largely increasing volume of freight which is every year flowing towards New York for distribution; and when that is accomplished, then if the Midland Railway Company should determine to cross the Hudson at the bridge, as the name of Mr. Littlejohn, and others in the charter, would seem to indicate, or if the Erie Railway Company should carry a track to this city over the bridge, the distance being the same as the present route, of course the interest of this city would become at once more direct.—*Financial Chronicle*.

The New York Society of Practical Engineering.

This Society held its regular fortnightly meeting at its room, No. 24 Cooper Building, on the evening of Tuesday, Nov. 10; the President, Mr. Jas. A. Whitney, in the chair; Wm. B. Harrison, Recording Secretary.

The regular subject before the meeting—"Railroad Accidents: their Cause and Remedy,"—was taken up, and an elaborate paper was read by Dr. A. W. Hall, of New York City.

After a glowing tribute to the achievements of the steam engine and the wonders it was yet destined to accomplish, Dr. Hall referred to the apparent liberality of railroad companies in their lavish expenditure of money in the construction of roads and their equipments, and their penurious want of consistency in refusing to adopt such essential improvements as would render travel by rail comparatively safe and comfortable.

The writer then proceeded to a classification of the different kinds of railway accidents, and pointed out the best known means to prevent them.

That class of accidents resulting from the carelessness and stupidity of employees of the company, such as misplaced switches, open draw-bridges, etc., he characterized as no better than manslaughter, and insisted, as the only remedy adequate to the case, that the courts and juries should so hold, as a warning to others; and to force a careful selection of men for such responsible places, the companies should be mulcted in the heaviest exemplary damages when a passenger is injured by accidents.

Obstructions upon the track of different kinds, such as horses, cattle, trees, rocks, etc., were next examined, and the penny-wise and pound-foolish policy of companies neglecting to fence in their roads to save expense was condemned in severe terms. It was urged that no trees or rocks should be left standing near enough to reach the track in case they fall, and that the only safeguard was a perfect system of brakes under the direct control of the engineer; as he was the first to observe the danger, he should have it in his power instantly to apply the remedy by the force of steam, and not depend upon the inefficient and slow movements of the brakemen. Auxiliary to this he spoke of the improved calcium head-light for locomotives, as a very essential aid to the engineer at night to discover obstructions in time to avoid them.

Collisions, direct and indirect, were examined at considerable length, and it was contended that, aside from the carelessness and inefficiency of those in charge of the trains, no collision ought to occur with a perfect time-table, accurate time-pieces, a well understood set of signals, and a telegraph office at each station. He instanced an accident some years ago, where over a dozen persons lost their lives by a collision resulting from a difference of just one minute between the conductors' watches, and referred to an electric clock that was invented about that time to overcome that difficulty, and secure thereby absolutely uniform time at the different stations.

Dr. Hall then referred to the breaking of locomotive and car axles, and made the somewhat surprising statement that there is no device now in use on any road by which the axles can be proved and their soundness tested. He referred to a recent accident on the Hudson River road, where a driving-wheel ran off, the axle breaking just inside of the

wheel. It had been broken half through for months, as the blackened appearance of the break showed, and stated his belief that hundreds of locomotives were now running with similarly flawed axles.

The subject of the burning of human beings alive in the ordinary wooden and combustible cars was severely treated. Dr. Hall denounced in unstinted terms the whole system of wooden cars, or using anything of a combustible nature in their construction, and insisted that in this age of iron, when our finest houses and swiftest steamships, as well as elegant street cars, can be made of iron, passenger cars for steam roads can be made of the same material, and went on to show how stoves could be dispensed with and cars heated by hot air conveyed from a small furnace car connected with the train, and that the same apparatus, pipes, flexible couplings, etc., could in hot weather be used as a ventilating device for supplying cool air and keeping out the dust. It was insisted that our State and national authorities should make the building of wooden passenger cars an indictable offense, and should prohibit the employment of stoves and kerosene lamps entirely, on the same principle of public necessity that induced Congress to pass a law compelling every steamboat to carry life preservers.

The writer then proceeded to examine that most fatal of all causes of railroad accidents, the breaking of rails, and estimated that not less than four-fifths of all casualties, resulting fatally, were from this cause alone. He compared the merits of good iron and steel rails, and while it was admitted that steel rails were many times superior to iron in point of wear and durability, their great superiority in point of liability to breakage was doubted. They have been known to break frequently in frosty weather, and he instanced cases where in midsummer they had broken off as abruptly as pot metal, without the slightest perceptible flaw and from no known cause, and declared it to be an all prevailing feeling that some improvement must yet be devised to keep cars from leaving the track, aside from the best rails that could be manufactured.

Dr. Hall then explained in detail his own invention of safety-rails and safety-wheels, which, though quite expensive, he maintained would entirely prevent that class of accidents. It consists in placing an extra set of rails so near the ordinary or working rails as to allow the flanges of the wheels to pass freely between them. The car wheels should be cast with an extra tread to run directly over this extra rail, but not to touch it being made a trifle less in diameter than the working tread), so long as the working rail remains unbroken. But should the working rail break or be moved out of line, the wheel only has to settle a quarter of an inch when it is supported by the extra rail and passes on in perfect safety. As to expense, he stated that it was proposed to use old or worn rails, which are not worth over two cents a pound, which would answer every practical purpose, and it would cost less to spike them down as safety-rails where they are, when relaying the track, than to remove them to market. Besides, it was not absolutely necessary to incur all the expense at one time, the safety-rails could first be applied to the most dangerous portions of the road, along embankments, over bridges, trestle-works, etc., as the funds could be spared, and the safety wheels could be first added to the swiftest passenger trains, and in this way almost any road might, in a short time, avail themselves of the improvement with the very money now paid for broken cars

and slaughtered passengers. He explained further how the safety-tread, being cast without a chill, would greatly strengthen the wheel itself, and render it less liable to break, and how the extra set of rails, by breaking joints with the working rails would give firmness and solidity to the track, and add to the durability of the rolling machinery of the road, and concluded with expressing the belief that the time was near at hand when the attention of railroad companies would be forced to a respectful consideration of every improvement that tended in any degree to the saving of human life, by an imperative and irresistible public sentiment.

Artificial Fuel, Peat, Etc.

The recent advance in the price of coal of nearly one hundred per cent. over what it was selling at a few months ago, should have the effect of stimulating the manufacture of artificial fuel, and of calling into play the numerous improvements which have been made in the preparation of peat. We also may safely look for new inventions or discoveries bearing upon the same subject. For a length of time back there has been but little encouragement or prospect of success for inventions of this class, owing to the very low price of coal, which, being a staple article, will doubtless always command a preference; still there are many instances where peat and coal-dust, or other refuse, properly prepared, would answer every purpose, and which, now that a better price can be obtained, in view of the rise in coal, it would be found profitable to introduce, even if only selling at a little over the price of coal prior to its recent advance. Such would be a great boon to the poor, provided it could be made suitable for domestic purposes; and we know of no reason why this should not be so, although the general application of such substitutes has heretofore been for manufacturing purposes. Artificial fuel for domestic use should be easy of ignition without burning too freely, and if possible should be exempt from making much ash or dirt. Perhaps if made in blocks or lumps of irregular sizes under a well assorted mixture, thereby in this respect more closely resembling coal as it is delivered for use, the same would be found more convenient and preferable, on various accounts, than if made in blocks or cakes of uniform size, which is the usual mode of preparing artificial fuel. If cleanly to handle, it would do away with one of the greatest annoyances attending the use of coal. Saw-dust, together with other refuse matter mixed with a suitable menstruum and compressed might, by the addition or substitution of new ingredients, be found to answer where previous attempts in the same line have failed. It might be advisable to mix coal-dust with the saw-dust, and, in preparing peat, to introduce foreign matter, which would do away with many of the objections attendant upon its use in a simple and pure form. Notwithstanding the many efforts that have been made to produce a cheap artificial fuel that would successfully compete with coal for a variety of purposes, or that, in view of its lower price, would command a ready sale, we can not but think there is a wide field yet left for a *bona fide* improvement of this kind, especially if adapted for domestic purposes, for which at present there is none in general use. A single additional ingredient might effect the desired result. There is also much

scope for patentable invention in the machinery necessary for manufacturing or preparing the various substitutes for coal. We throw out these suggestions for what they are worth, trusting to the inventive talent of the country to make the much needed discovery.—*American Artizan*.

Railroads in Arkansas

[Special Correspondence of the Cincinnati Times]

MEMPHIS, TENN., Nov. 22, 1868.

RAILROAD PROJECT.

Now that election is over the attention of our most prominent men, who have taken an active part in the political issues of the day, has been drawn toward the railroad projects mentioned in a former letter—the interest being divided about equally between the Memphis and Okolona, upon which work is about to be commenced, and the Memphis and Little Rock road, which is completed to Madison, Arkansas, and upon which work is being rapidly pushed forward with a view to the rapid completion of the line to its destination.

At the recent election Arkansas came forward, and by the popular vote of the State, ordered the State bonds to aid in the completion of the great enterprise, and now all difficulties about funds having been removed, the company will have plenty of means to finish it, as it should be, a first-class line.

Great credit is due the President, R. C. Brinkley, Esq., who has during the past years sustained this road almost entirely with his own means, indorsing the bonds of the company, thus enabling them to purchase large quantities of iron and other material, and, also, furnishing the means almost entire for the construction of the bridge over the St. Francis River, and he confidently expects to have the road completed in fine running order by October, 1869, making the trip from Memphis to Little Rock in eight hours, twenty hours from Memphis to Hot Springs, and only forty-eight hours from Cincinnati to Hot Springs.

When this road is completed is expected that a branch line will be built southeast to Paris, about 26 miles, with a view to bring the larger part of the Texas trade this way, including the entire cattle trade, which of itself would contribute largely toward the support of such a road, and would also obviate the necessity of driving the cattle through the Indian nation to Kansas, where they are now sent, arriving along the line of the Kansas Pacific Railroad, thin and footsore; whereas, by the route *via* Little Rock, Paris and Jefferson, they could be transported by rail at even less expense than driving. Not less than 500,000 cattle have this year been driven from the northern part of Texas to the Kansas Railroad, and should a road be extended from Little Rock to that section of the country, it would without doubt not only bring the cattle, but all the cotton, corn, and in fact the entire product of the country.

TONNAGE OF THE BRITISH EMPIRE.—“According to customs returns recently published, 40,942 vessels were registered in the British empire in 1867, requiring 346,606 men, and representing a total of 7,277,098 tons. An epitome of these figures indicates that of these vessels 27,918 belonged to the United Kingdom, 855 to the Channel Islands, and 12,169 to British plantations. A total of

Bridges, Tunnels, Etc.

—There are one hundred miles of tunnels for railroads in Great Britain.

—The following are some of the dimensions of the proposed bridge across the Hudson river: The span, 1,600 feet; length of bridge between towers, 1,665 feet; total length, including approaches, 2,499 feet; height of towers above the water, 280 feet; working safe load for the railroad lines, 2,400 tons; working safe loads for highways, 2,880 tons; total safe load for the bridge, 25,171 tons; miles of steel wire in cables, 70,302; total weight of iron and steel in the bridge, 17,005 tons; total amount of masonry, 58,084 cubic yards; total suspended weights, 9,651 tons. There will be twenty cables, in four systems; each cable will be 14 inches in diameter. The bridge will carry at one time 32 passenger cars; it would carry safely 34,560 people and 60 locomotives, if they could be placed upon it at once; 18,000 people and 53 locomotives would fill it. From the dimensions given above, it will be seen that this bridge will be longer than any one yet built on the continent, though a span of 1,610 feet is projected in the bridge undertaken to be built across the St. Lawrence at Quebec.

—The railroad bridge over the Mississippi at Quincy was tested last Saturday. An engine with platform cars attached, containing the principal railroad men and engineers, left the Chicago, Burlington and Quincy Station at 10 o'clock, two other engines being in readiness near the bridge, the whole weighing not far from one hundred tons. The first test was the largest span, 200 feet in length, the whole train running slowly to the centre of the span, where it remained nearly half an hour, and with this immense weight the span settled less than one inch. The draw was next tested in the same manner, with no variation to speak of. Afterward the remaining spans were tested in a similar manner, all with the same results. The train was then run successively at eleven and twenty miles an hour over several spans, with scarcely any vibration. The test was very severe and occupied three hours. The weight on the several spans was much greater than will ever be necessary in operating, for the reason that the strain will never be as great on any single span hereafter. It was perfectly satisfactory, and all expressed themselves well pleased. The structure is all that could be desired, and great credit is due to T. C. Clarke, Chief Engineer, and his assistants, for their unwearied exertions to make it so, and has cost but little short of one and a half million dollars. Trains on the Hannibal and St. Joseph Railroad now start from Quincy.—*W. R. R. Gaz.*

RAILROADS.—Mr. James F. Joy, President of the M. C. R. R., in a speech at Detroit, said he was of opinion that only one section of the Chicago and Port Huron route would ever be built; and this from Jackson to Niles, by the aid of the M. C. R. R., in order to make an air-line and to draw to Detroit the produce of a large and wealthy section of the State, which now goes to Toledo, by way of the Southern route. He thought the Holly and Monroe road would hardly ever be built. He said it was the business of Detroit merchants to look out for the trade. He says Chicago does not subscribe as a corporation to build railroads, and he thought she was wise in that, and that Detroit should take counsel of her wisdom.—*Expounder, Marshall.*

FRENCH RAILWAY STATISTICS.—We glean the following curious items from an article in the *Moniteur* on railway trains and locomotives:

"The work performed by the latter drawing a train is equivalent to that of 450 horses, independently of the circumstance that they could not hold out so long. When the action of steam is compared to horse-power, the unit of the latter represents three times the enduring force of the animal. The minimum speed of an engine drawing a passenger train composed of fifteen vehicles is forty kilometres per hour. It may be increased to sixty, eighty, or even a hundred kilometres, but then the number of carriages must be reduced to eight or six. In the case of goods trains the speed does not exceed thirty kilometres per hour. Mixed engines, by which are meant those serving both purposes, go at a rate of from thirty-five to fifty kilometres. Stoppages included, a composite train performs thirty kilometres per hour; an express will do from forty to fifty. In France these rates are seldom exceeded, except in the case of the London and Paris Express, and that of the Indian Mail, which go at the rate of nearly a hundred kilometres. A Crampton engine drawing twelve carriages consumes eight kilogrammes of coke per kilometre in summer, and eight and a half in winter. Every item of expense included, such as salaries, coke, oil, rags, &c., the cost of a trip is ninety-three cents per kilometre. An engine is generally worn out by the time it has traveled over 300,000 kilometres. As it usually performs about 25,000 per annum, its duration may be fixed at ten years. The cost of an engine is about 48,000f; that of the tender 11,000f. A Crampton locomotive, with all its provisions and accessories, weighs 45,000 kilogrammes; a mixed engine, 35,000 kilogrammes; an Ergerth one, 63,000 kilogrammes. Without their tenders these engines weigh respectively 27,000 kilogrammes, and 40,000 kilogrammes. A first-class carriage weighs 5,600 kilogrammes; a second-class one, 6,200 kilogrammes; a third-class one, 6,600 kilogrammes; the old diligences weighed 4,000 kilogrammes. A first-class carriage costs 10,000f; if with a coupe, 11,000f; a second-class, 6,000f; a third-class, 5,000f.

GRAND RAPIDS & INDIANAPOLIS RAILROAD.—A special dispatch to the Cincinnati *Gazette*, dated November 18th, says: J. K. Edgerton, President of Grand Rapids & Indianapolis Railroad, says that 24 miles of the road is made, and the section of 20 miles, from Grand Rapids to Cedar Springs, is in operation, and during October last, earned over \$6,000, and that the entire road is in condition to be completed before midsummer of 1869. The actual value of the road now, including franchises and land grants, is over \$1,500,000. The question of aiding this important road on a scale sufficient to insure the construction of 200 miles (to Straits of Mackinaw) within twelve months, is now before a committee of the Pittsburg, Fort Wayne & Chicago Company in a form likely to command their approval. The President speaks very hopefully of the early completion of the line.

A PLEA FOR THE BROAD GAUGE.—For the Great Western of England, so writes a shareholder remonstrating against fresh expenses, to propose the narrow gauge after so long contending for the broad, would be an act

of inexpediency, not to say folly. It is well known that the South-western are running trains to Exeter, at a very high ratio of speed, in order to rival the Great Western; and it was only last week that a gentleman told me, who had just traveled from Exeter to London, that the speed was so great in the train that the oscillation was wonderful. Therefore, let the proprietors of the Great Western congratulate themselves that (though with a great cost) they have a broad gauge. For Dr. Lardner proved, years ago, that safety was compatible with great speed on the wide gauge, since the center of gravity is not so high as on the narrow. And it may be truly asserted that none but the Great Western can travel in safety at fifty miles per hour.

R. R. CONTRACT CLOSED.—The Illinois Southeastern Railway Co. have closed the contract with Messrs. Dodge, Lord & Co., and Mr. Wm. P. Catter, for building and operating the Illinois Southeastern Railway, commonly known as the Shawneetown and Edgewood Railroad. The work is to be commenced before the 12th of February, 1869, and the road is to be completed and in operation in two years after that time. The Illinois Southeastern Railway Company have obligated themselves to raise the deficit of \$65,000 in the donation of \$700,000, mentioned by us in our last issue, and therefore there will be no delay in the commencement of operations on this account, and it is a pleasing thought to believe that we are soon to hear the whistle of the iron horse and enjoy the blessings of a railroad. All honor to the men who have carried this enterprise forward.—*Shawneetown Mercury.*

—The stockholders of the E. T. and Va. Railroad, at their recent meeting in this city, believed that the interests of the road could be best subserved by electing the President and Superintendent of the E. T. and Ga. road to the same positions on their own line. The warmest encomiums were uttered by the stockholders in speaking of the management of President Branner and Superintendent Hoxsie. The stockholders have reason to congratulate themselves that in selecting the officers of the E. T. and Ga. road to manage the Virginia road, they have obtained the services of eminent and efficient railroad men, under whose management their interests will be faithfully protected.—*Knoxville Herald.*

VIRGINIA AND TENNESSEE RAILROAD.—The stockholders of the Virginia and Tennessee Railroad, in session at Lynchburg, Va., recently re-elected General Mahone, President. The annual report shows the immediate liabilities of the road to be \$461,649, with \$313,000 additional on account of interest upon past due coupons, certificates and bonds. The assets of the company, including open accounts, stores and cash in hand, amount to \$227,074. The funded debt of the company stands as follows:

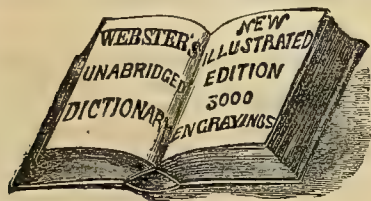
1st mortgage bonds.....	\$494,000 00
2d mortgage bonds.....	23,500 00
Enlarged bonds.....	990,000 00
Income bonds.....	138,500 00
Salt works branch bonds.....	9,500 00
8 per cent. bonds of the \$1,000,000 issued.....	736,000 00
8 per cent. reg. certificates.....	61,352 36

A NEW RAILROAD COMPANY.—The Grand Rapids Democrat has the following:

A railroad meeting composed of quite a number of our solid men was held in the room of R. Gardner, Esq., at the Rathbun House, on the evening of the 19th inst., at which gathering a resolution was passed organizing a railroad company, for the purpose of building a railroad from this city to Muskegon, and thence along the shore to Lake Michigan. It was, we learn from outsiders, determined to open the subscription books for this contemplated road immediately.—*Free Press.*

M. A. L. R. R.—The Chicago Republican says: "It is expected that the cars will commence running on the Michigan Air Line Railroad, between Ridgeway, on the Grand Trunk, and Romeo, Macomb county, Mich., by Jan. 1, 1869." We would say in connection with the above that Superintendent Young has lately put three sub-contractors at work in St. Joseph county. There is a good prospect for the early completion of this road.—*Niles Dem.*

2,180 new vessels were built and registered during the year, 1,305 of which belonged to the United Kingdom, 23 to the Channel Islands, and 852 to the British plantations. A total of 32,756,129 entered inwards and cleared outwards in the United Kingdom. Those entered inwards represented 11,197,365 tons British, and 5,140,952 tons foreign, and those cleared outwards 11,172,205 British, and 5,245,090 foreign."



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2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

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HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS, EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race.

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

W. H. MITH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELLES, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indiana
Aug. 2, 1866.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,

48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

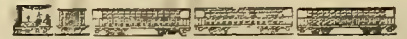
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a.m. and 18:00 p.m. On Sundays, one Express Train
at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers from the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p.m. Without change of cars from
New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.;
Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at
7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Read-
ing at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at
1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton
at 1:35 p.m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p.m.

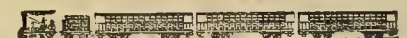
2:10 p.m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Read-
ing at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at
7:20 p.m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

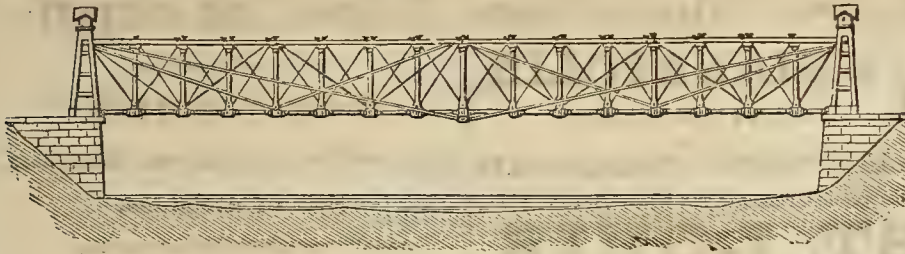
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the pri-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN. MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring). Composition Castings for Bearings; every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only, Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

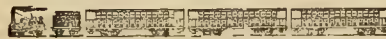
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to the extent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner, on the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 30 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI, 7 40 a.m.	10 10 p.m.	4 01 p.m.	
Arrive SEYMOUR, 12 00 m.	2 00 a.m.	8 10 "	
Leave " 12 20 p.m.	2 10 "		
Arrive VINCENNES, 5 15 "	6 35 "		
Leave " 5 20 "	6 40 "		
Arrive ODIN, 9 35 "	10 30 "		
Leave " 9 45 "	10 40 "	6 30 a.m.	
" SANDOVAL, 9 55 "	10 50 "	6 40 "	
Arrive ST. LOUIS, 1 00 a.m.	1 30 p.m.	9 40 "	
Trains Arr. at Cincinnati, 6 10 a.m.	11 30 p.m.	12 00 m.	

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

[C. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE, General Superintendent.

Best Route to St. Louis and Chicago
INDIANAPOLIS,
CINCINNATI
 -AND-
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

 Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North west and South-west.

5 THROUGH TRAINS DAILY,
 (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7:00 am	10:50 pm
Indianapolis and Cairo Express.....	7:30 am	2:30 am
Cairo and St. Louis Express.....	2:30 pm	4:08 pm
Springfield, Quincy and St. Joseph Express.....	2:20 pm	4:08 pm
Chicago Lightning Express.....	7:15 pm	11:30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8:50 pm	6:15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10:10 am	8:35 am
Connersville and Cambridge City.....	4:00 pm	9:15 am
Lawrenceburg.....	4:45 pm	2:20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

 J. F. RICHARDSON, Superintendent.
 F. B. LORD, General Ticket Agent.
MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

 MOSELEY & CO.
 Boston, Mass.
EDWIN J. HORNER,

Successor to

"McDANIEL & HORNER,**Locomotive and Railroad****CAR SPRING MANUFACTURER,****Wilmington, n. Delaware****FREEDOM IRON COMPANY,**

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.,

Continued to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.
PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same. &c., &c.
Gas Works Castings, etc., etc.
PHILADELPHIA.
 STEPHEN MORRIS, CHAS. WHEELER
 THOS. T. TASKER, JR., S. P. M. TASKER
 HY. G. MORRIS.

Philadelphia, Wilm'gton & Baltimore
RAILROAD!!
**FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

 On Sundays, 4.30 A. M.; 11.30 P. M.
 Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, DECEMBER 10, 1868.

THE RAILROAD RECORD,

PUBLISHED EVERY THURSDAY MORNING,

BY WRIGHTSON & CO.

OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.	
One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
" column, single insertion.....	5 00
" " per month.....	10 00
" " six months.....	40 00
" " per annum.....	80 00
" page, single insertion.....	75 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00

Cards not exceeding four lines. \$5.00 per annum.

WRIGHTSON & CO.,

Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:30 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.	
Baltimore and Washington City	
Express and Hillsboro Mail.....	7:30 A. M. 5:00 P. M.
Baltimore and Washington City	
Night Express.....	12:35 A. M. 5:50 A. M.

Marietta and Parkersburg Mail.....	7:30 A. M. 5:40 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M. 10:00 A. M.

Loveland Accommodation.....	5:40 P. M. 7:45 A. M.
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CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M. 10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M. 6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M. 11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M. 1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M. 10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M. 10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M. 5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M. 10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M. 10:30 A. M.
Hamilton Accommodation.....	6:30 P. M. 7:55 A. M.
Dayton Accommodation.....	6:30 P. M. 10:30 A. M.
Dayton Express.....	5:00 P. M. 6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M. 7:05 P. M.
Night Express.....	5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Connersville, Cambridge City and Indianapolis Mail.....	6:15 A. M. 10:20 A. M.
Connersville, Cambridge City and Indianapolis Express.....	5:30 P. M. 7:20 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M. 6:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M. 8:10 A. M.
Harrison Accommodation.....	10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M. 11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M. 6:10 A. M.
Louisville Special Train.....	3:45 P. M. 1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M. 4:10 P. M.
Caboose Accommodation.....	3:50 P. M. 8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M. 6:00 P. M.
Lexington Express.....	2:00 P. M. 12:50 A. M.
Falmouth Accommodation.....	6:30 P. M. 7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M. 6:15 A. M.
Fast Express.....	8:30 A. M. 4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M. 10:35 A. M.

Iron and Steel Used in Railroads.

Two or three years since some enterprising gentlemen of Cincinnati bought an old rolling mill, on East Front street (Cincinnati), and established railway iron works. Their object was to take the old rails and refuse iron of the railroads, and adding new iron, to manufacture the whole into new rails. This is an evident economy to the railroads, and as evidently might be made profitable to a company conducting the business prudently. We are told that the Railway Iron Works have been entirely successful. This reminds us that in a city like Cincinnati all the rails and machinery, necessary to all the roads in its vicinity, ought to be within itself, and may be so, so as to give great profits to both the roads and the manufacturers. Iron, coal and wood, the elements for the successful manufacture of every thing connected with a railroad, are not only very abundant, but very cheap, at Cincinnati. There is probably no place in America where the materials of manufacture can (taken as a whole) be procured more cheaply than in Cincinnati. What, then, prevents the manufacture of iron in Cincinnati, in all branches and departments, being fourfold what it is? We are compelled to say in this, as in many other things, it is the *want of enterprise and of true intelligence*. The other day we saw in a paper that the iron manufactures of Chicago were so great that they employed 15,000 men. This may be an exaggeration. But it is evident that Chicago is manufacturing for the great numbers of railroads in her vicinity, as well as to supply the wants of the great North-west beyond her. We have then, in this fact, evidence of two things, on which the RECORD has been constantly harping, as some people may think unnecessarily. One is the immense advantage to the business of a city, of a great concentration of railroads in it; the other is the *special* advantage of a direct Southern railroad to Cincinnati. Chicago has grown with immense rapidity, because of the concentration of vast lines of railroads there, which secures the trade of the country West, which naturally belongs to it. This Cincinnati has not done. While to the North and East Cincinnati has great numbers of railroads, it is precisely in that direction she is met with competition, and the limits of her trade reduced down to narrow limits. Pittsburg, Cleveland, Toledo, Detroit, Chicago—all compete with her in these directions. On the South nobody competes with her. Louisville strives to do it, but Louisville can not compete with Cincinnati, if Cincinnati ever gets a direct railroad South. This is suggested by the fact we have stated, that Chicago is the great manufacturer of iron. Cincinnati ought to manufacture four times as much as Chicago, and will do it, whenever the business men of Cincinnati

shall perceive their own interests, and act upon it with energy and public spirit.

But when we began we meant to speak of the consumption of iron in railroads, and the great advantage of manufacturing it for ourselves.

What is the consumption of iron on our railroads? In a recent work we find the following:

"The superintendent of one of our most successful railroads informs us that iron rails on that road average about seven or eight years of life. Steel rails have been recently introduced, but the test is not considered sufficient to afford proper data for an opinion. Steel tires have been used on the road several years, some of them having already run 70,000 miles, and, while costing double the price of iron, their durability has proved that they are superior to iron ones. No such performance, we are certain, can be recorded for iron tires. The 'best iron tires'—according to Thomas Prosser, C. E., who has lately issued a pamphlet on this subject, which should be a satisfactory exhibit to our railroad men—'average only 60,000 miles, during which time four of them will grind up one ton of rails.'"

There are over 3,000 miles of railroad terminating in Cincinnati, all of whose work should be done in Cincinnati. Now, at 100 tons of rail to a mile, this gives 300,000 tons of railroad iron. Supposing the average life of these rails to be eight years, there will be consumed each year 37,500 tons of iron rails. Supposing the cost to be only \$50 per ton, there will be nearly two millions of dollars worth of iron rails to be made each year. This is a low estimate. Then there will be at least half as much more for the incidental machinery. Then we may allow half as much for new work. Altogether, there would be four millions of dollars to be paid out in Cincinnati for railway work, which would employ 8,000 men constantly. How much of this work is now done in the city we know not, but certainly nothing like this amount. Railroads are constantly tending toward the point where they will live within themselves—that is, do all the work they require. When they do this and have no debts, they will all, without exception, be profitable.

Latterly the idea of using steel for rails has been taken up, and the *Annual of Science* has the following:

"The application of steel to many of the purposes for which iron has been and is now generally used, had been limited by the difficulty in producing steel in sufficiently large masses, at a comparatively low cost and free from flaws, with a perfect homogeneity of material—this seemed to present an almost insuperable difficulty to its general employment. Cast steel made by cementation, while possessing superior hardness, lacked tenacity; if tough, it was soft; if hard, it was brittle. In 1851, however, Krupp, of Essen, Prussia, showed, in the London Exhibition, an ingot of cast steel weighing 4,500 pounds, the heaviest then known. In 1862, he exhibited another one weighing twenty tons, in the form of a solid cylinder, nine feet high and three feet eight inches in diameter. It had been broken across to show its fracture; un-

der a good microscope it would not exhibit a single flaw. Since then he has repeatedly produced masses of forty tun weight.

"There can be no reason, at this late day, and in view of the experiments made in England and on the continent, for doubting the superior durability, and the ultimate superior cheapness of steel rails and tires over those of iron. On our railroads it is theoretically correct to say that the weight of a load rests on a point; but it is not practically correct. There is compression; much of it in the road itself, or the rail, but some of it in the wheel or tire. Yet, notwithstanding that it can be demonstrated.

"A perfectly rigid bed or roadway, and as rigid wheels, is the rule that is found by experience to be the best. Soon as a wheel or a tire gets 'out of round,' it becomes, in operation, a hammer, destroying the rail. Mr. Bessemer, at a recent meeting of the British Association at Nottingham, gave an exceedingly elaborate and interesting account of his own system of manufacturing steel, and showed the vast importance that branch of industry had assumed since his patent came into working operation. But the old system, forty pounds of steel, was the largest mass of metal operated upon; but by his process as much as twenty-five tons could be converted into steel in one heating. It had superseded iron wherever large castings were required, such as ordnance of large size, locomotive and marine engine-cranks, rails, etc. He mentioned, as showing the superior durability of steel rails over those of iron that at the station at Camden Town, at a part of the line over which all the traffic passed, a steel rail was placed on one side of the line, and an iron rail on the other, and that seventeen faces of the iron were worn away, while the first face of the steel rail was still in working order. The first cost of steel rails was, of course, much greater than that of iron, but compensation was found for this in the greater durability."

We believe that steel rails are being rapidly introduced in this country, but to what extent we do not know. There is no doubt that steel rails will be almost universally adopted, and that in the end they will be economical.

We have alluded to this subject here, because we hold that these two principles are unquestionably true: 1. That the *best* of every thing is, in the end, the cheapest; and, 2d, that economy requires we should do every thing within ourselves, as far as possible.

If Cincinnati is hereafter to grow, it must do two things: It must extend its lines of railroad in every direction not now occupied, and, at the same time, increase its manufactures. In manufactures, as we have before stated, there never was a place which had greater advantages, especially, in all that relates to iron, wood, leather, cotton, &c. There is at present but one cotton factory, on a large scale, but there is room for a dozen; and, if well conducted, they must be profitable. In furniture, Cincinnati now stands at the head of that business in the Mississippi Valley. In iron, of the small kind of factories, it is also at the head, but why should it not take the lead in the whole iron business?

In regard to railroads, it ought at least to supply the iron and machinery for the whole Ohio Valley.

Railroads to the Pacific.

How and How Much Congress Should Aid Their Construction.

The People Benefited and the Government Indemnified.

Among the most perplexing questions that will come before Congress at the present session, is that of Government aid in the completion of our trans-continental system of railroads. The theory of aid to these works of internal improvement is one that has received the indorsement of all political parties, and should be of such a comprehensive character as would bestow its benefits on and receive the support of all geographical sections alike. With what *has* been done, we are not disposed to find fault, although not done as *we* would have advised. The route of the Union Pacific, now so nearly completed, we have always contended, was the most impracticable of all, and of this fact the Government were fully aware, both from their reports and surveys of Government officers, as well as the information obtained from private sources. It is not, however, to this feature that we designed at this time to attract attention, it is to the question of *how and to what amount should the Government aid the construction of continental railroads.*

In the first place we deem it a self-evident proposition that the Government, as a land-owner, *can afford to make the roads through the public domain.* If the domain was *private property*, no one would think of making an inquiry as whether it *would pay.* The only response would be yes! and give it away. Now, we can not see that this question is materially altered by the ownership of the land through which the road runs, but rather that reasons accumulate why the Government should not only aid in the construction, but push them to completion at the earliest day practicable. That experience should teach us how to avoid the errors of the past; perfect security to the Government against loss by its endorsement of the company's bonds should be assured, not by a *second mortgage*, but by a *first mortgage* on the road and its equipments. This should be made reasonably liberal, so as not to embarrass the action of the company in the construction of the work, and cause delay or failure. The Government ought not, under any circumstances, to accept of a *second lien*; it is contrary to custom, injudicious in practice, and wrong in principle.

The bonds issued by the Government are a *first lien* on the whole property of the country, and all the individual and collective property of the nation is pledged for their redemption. Now, to exchange them or loan

them, on the very doubtful security of a *second mortgage*, to a company who have the power, and whose successors may have the will, to sell out the property of the company whenever it becomes their interest, or the interest of their friends, to do so, is like taking *straw bail* of a criminal—it is preposterous—it is offering a reward for the most gigantic swindle that the world ever saw. Although, even at this enormous cost, it is cheaper and more economical for the Government to have the roads than to do without them. It is, however, just as well to avoid this risk, protect the national interest, and secure the public morals against such great temptation.

If more money is needed in construction than is prudent to grant on a *first mortgage*, sufficient can be obtained, first, by a *gentle assessment on the stock*, and, second, by the sale of *land grant bonds* in Europe, bearing interest, and receivable in the purchase of lands from the company by the thousands of emigrants that will seek homes on the lines of our great Pacific Railways. This is not a new and untried theory; it has had practical demonstration in the experience of the Illinois Central railroad, and produced the very effect the Government desired, viz: the settlement of the country. This should be further encouraged by a fixed limit to the price of the railroad land, which should correspond to the price charged by the Government for lands similarly situated. Thus the nation would be strengthened and the basis of taxation increased.

We do not claim these views as a new discovery; they are but the echo of what we have again and again expressed in our *RAILROAD RECORD*, and we find them fully sustained by such able authority as *Hunt's Merchants' Magazine*. From the May number of this valuable journal for 1860, we make the following extracts:

"The requisites of a road are *shortness and cheapness.* These are relative. The road which is shortest and cheapest to connect the Columbia river with the great Northern interests, including those of Canada, which concentrate round Lake Superior, is not the shortest and cheapest mode of reaching New Orleans from San Diego; nor would a route between the two latter at all accommodate those Northern interests. The Pacific Railroad extended from St. Louis to San Francisco would be the shortest and cheapest for those central interests, but it could not advantageously do the business of the other sections. If the Government moves at all in this matter, it is evidently impossible for it to aid one section and not the others. The three great sections, being equal partners in the common property of the whole country, must be made to feel that out of the common funds each has its just share of aid. To adjust the question on any other basis would only lead to strife instead of harmony. Those facts are palpable to all. Each of these sections has large means that can be applied to the construction of a road that would serve their necessities, but which could not be enlisted in favor of one that would be

of no direct benefit. If, therefore, the Government should give authority for the construction of three roads, with grant of six mile sections along the route of each, and in addition aid each by a grant of \$50,000,000 of five per cent. bonds, taking a **FIRST LIEN** upon the road, the local interests of each section would complete the balance. The direct benefit that the Government would derive from three routes instead of one, manifests itself in the sale it made of old lands in Illinois, on the construction of the Illinois Central road. It had had for more than fifteen years some fifteen millions of acres under proclamation without being able to sell them, until it gave 2,500,000 acres to the Central Railroad. It then realized \$9,000,000 from the balance of lands. The construction of one Pacific route would benefit only one strip of land, to the extent of the aid granted. The construction of three routes would give it triple advantage in that respect. The value of lands depends upon proximity to market, and to open six termini through this broad expanse instead of two, would evidently diminish the cost of freight to market. The more this cost is diminished, the more the value of lands is enhanced. These facts, so vital to all landed and agricultural interests, seem not to have been borne in mind by the Congressional Committee of thirteen which reported in favor of the longest and most costly route, having higher grades and more snows to encounter than either of the other routes. The construction of the shortest and cheapest routes for each section, must of necessity give a great stimulus to the commerce of each with the Pacific country, and the reverse is also true, since a long, tortuous, and expensive route would greatly retard the progress of the trade; yet such is the road that the Congressional Committee have recommended as the central. It is to be borne in mind, that the English Government and colonial interests are as much concerned in the speedy construction of a road to the Pacific as are any American interests. In fact, it is more important to them, since the more northerly position of the Provinces on the Atlantic, and also those on the Pacific, make communication between them more difficult and costly than between the Atlantic and Pacific settlements of the United States. The Canadas are well settled in their allegiance to the British crown, and its possessions on the Pacific show no desire of independence. The sole motive that would develop a desire for separation would be difficulty of intercommunication. That serious difficulty has been foreseen, and surveys of routes have been made for a railroad on British territory. The English engineer engaged on those surveys has reported the impracticability of a road on British territory, and that if it were possible there to construct a through route, it could only be of so tortuous and expensive a character as would force the trade upon the American route; whereas, a straight and cheap road, connecting Lake Superior by the valleys of the Missouri, Mississippi and Columbia rivers, with Vancouver's and Puget's Sound, would carry the whole trade and deliver it by branches at the most desirable points of the British territory. It is not alone the Northern United States that have a large business seeking Western connections, but the whole Canada system of railroads will connect by way of Detroit and the Michigan net-work with Mackinaw. The grant of lands now in force in aid of a road from Saginaw to Mackinaw, will insure a short and cheap connecting link, to be con-

tinued by a new grant to the western end of Lake Superior. A new Canada connection in the future will take place by the Ottawa and Huron Railroad with the Sault St. Mary's, and thence at Mackinaw, uniting with the Michigan roads, proceed westward from that point to the west end of Lake Superior, aided by a land grant of alternate six mile sections. At that point the whole Wisconsin system of roads, connecting with Chicago, forms a confluence, and the swelling volume bears westward toward the mountain pass and the Columbia Valley.

"At the western end of Lake Superior the Canada, Michigan and Wisconsin roads will have united on one, and exhausted State aid. From that salient point nearest to the Pacific, so well supported by local trade, a vast interest is there concentrated in expectation of Government aid. The whole network of Western railroads is now in a state of abeyance. Immense sums have been expended in that region, but revulsion has overtaken it. The railroad securities are heavily depressed, and vast sums sunk in land are utterly inconvertible at the present moment, while the local traffic has fallen to a low point. It is very evident that the moment the Government should grant such aid as would give vitality to a road connecting all those interests with the Pacific, revival will take place. The British interests will, in common with the States, have a cheap and short connection with the Pacific, on a line which will bring the Asiatic trade on the most direct route to the markets most adapted to it. Every Western road will have an outlet, and, as a consequence, every material interest will revive. It is not only the direct results of the railroad traffic through the Government lands, leading and giving locality to emigrants, but it is to restore to the whole West that activity which existed a few years since, and which was so suddenly crushed out by the revulsion of 1857.

"It is not proposed that Government should authorize this road exclusively, but that it should grant the right of way, and aid the two other sections. Thus, on the estimate that the roads would cost \$50,000 per mile, or in round numbers \$100,000,000 each, if Congress were to grant \$50,000,000 to each road authorized north, central and south, taking a **FIRST LIEN** upon the roads, it is evident that it would only have provided the means of making its own lands available in case the roads were built. The public would then have a strong interest in each undertaking, and that which was adjudged the most feasible would command the confidence of capitalists at once. The northern route that we have indicated would at once command the attention of the North, of Canada and of England. It would become, as it were, an international work, without any danger of foreign control, since the western termini are on American soil. The work, combining such interests, would become a new bond of peace between the two countries, and British capital and government would become interested in its prosecution, less from a prospect of pecuniary returns than to subserve other interests. The intervention of wars in Europe, which are reasonably to be relied on during the next ten years, would become rather a stimulant than a drawback upon the construction of the road, and for the reason that, with Russian presence on the Pacific at the mouth of the Amoor river, and on the opposite American coast, with the vast Indian and Australian interests of England

at stake, a railroad connection between her Atlantic and Pacific colonies would become indispensable, and English capital would pour freely upon the enterprise secured by \$50,000,000 of United States Government bonds. Following that expenditure would be the whole train of operations such as we have witnessed at the West in the five or six years ending with 1857. The sums contributed directly to railroads were swollen by other sums in the hands of the thousands of emigrants, and by the largesums attracted there to speculate in the rising values which that migration and expenditure inevitably produced.

"Similar circumstances would operate in favor of the southern road, which will connect the great raw materials of the South with the growing manufacturing interests of the Pacific, through a prolific mining region. The great active financial and commercial interests are, however, all bound up on the northern route, and that is the one which would the most readily receive the necessary support to Government aid. The value of this route consists in the fact that it is the shortest and cheapest for the accommodation of the largest interests, and its eastern terminus is well supplied with branches already built and in operation.

"The proposition to make the central road, and then run a branch northwest to Vancouver's Island, seems to be an example of 'how not to do it.' It would cost \$40,000,000, and run 'nowhere for nobody.' It would benefit neither land, nor trade, nor Government, and become only an obstacle to the successful development of business."

NATIONAL BOARD OF TRADE.

Railroads and Internal Improvements.

This body comprised of the representatives of the most intelligent and practical thinking class of men of our country, their recent session in this city, had the following action in relation to trans-continental railways:—

Remarks of Gen. H. Walbridge, of New York, before National Board of Trade at Cincinnati.

GENTLEMEN: In the remarks I have the honor of submitting, I propose to discuss the influence that railways exert in the creation of wealth, and apply them in a more particular manner to those great national works which, in the United States, are to connect ocean with ocean, and open to settlement and commerce vast tracts of the national domain, now deserts, and which must remain such till touched by the quickening hand of those mighty agents, the use of which is the peculiar feature and the glory of the present age.

The use of these agents—the forces of nature—marks the dividing line between the old and the new. The first use of steam as a motive power, is within the memory of the middle-aged. Previous to 1830, muscular action was the sole agent employed in the movement, on land, both of persons and property. In this respect society had remained stationary from earliest history. The Great Alexander and the Great Napoleon employed precisely the same means, in their wonderful marches, for the transportation of men, supplies, and the material of war.

Under the old regime the cost and impotence of muscular action was so excessive as

to restrict commerce in the more bulky articles—articles, too, of chiefest account in social economy, food for example—within very narrow limits. Hence the extravagant importance attached to portable articles of high value, such as gold and silver. At an early period, a half dozen of articles made up the staple, almost of the commerce of the world. In this matter the experience of our own people covers the whole ground. Our markets are all within a narrow belt lying immediately upon the seaboard. Previous to the construction of improved highways they could be reached only from a very limited area. The report submitted to the Legislature of the State of New York, in 1817, and which led to the construction of the Erie Canal, stated the cost of transporting a ton of freight at that time, from Buffalo to the City of New York, to be \$100—a sum exceeding twice the value of wheat at Buffalo, and four times that of corn! The time required was 20 days.

Such is an illustration of the condition of the internal commerce of our country forty years ago. The nature of the soil in most of the States rendered the construction of ordinary highways very difficult. Neither railroads nor canals existed. Commerce was restricted, consequently, to water-courses navigable by steamboats, barges, and even to batteaus. Over nine-tenths of our inhabited territory, the produce of the soil was without commercial value—that is—the cost of sending it to market far exceeded the sum it would sell for. The labor of the farmer, consequently, instead of being directed to objects that would produce the greatest value, was necessarily employed in the production of nearly every article going into domestic consumption. The family was obliged to be, in a great measure, self-supporting. The loss attendant upon a constant change of the objects of labor was so great that little more was produced than was necessary to meet the daily accruing wants. The accumulation of wealth was a process exceedingly slow, and its possessors a mere fraction of society. All this is within the experience of nearly every one that hears me. Each one of you, of middle age, went forth to school, and from school to the world, clad in *homespun*. You could not buy the product of others because you could not sell your own. The labor upon the farm in which almost the whole nation was employed was, owing to the want of those mechanical aids now so universal, comparatively unproductive. There was no stimulus to improvements for the abridgment of toil, because, with the existing state of highways, there was hardly any demand, out of the family, for what could be produced.

Such is a brief picture of the past—of the *old regime*. In locomotion society remained stationary for six thousand years, and till, within the memory of all, the forces of nature came to its aid. The power gained by a substitution of *steam* for muscles, and by highways of comparatively straight lines and smooth surfaces, is almost incalculable. The locomotive upon the railway exerts the power of two thousand horses upon an ordinary highway—that is, it will move in a day as many tons, one mile, as two thousand horses. But the cost of providing the two thousand horses and a thousand wagons, with that of their maintenance, exceeds tenfold that of the locomotive and cars of the capacity of two thousand tons. With these brief data the arithmetic is simple, although the comparative results are most astounding. As incredible as they seem, they only mark the magnitude

of the revolution which the physical sciences have wrought in favor of man.

We have said enough to show that in this country its internal commerce is a creation of the new agencies which the last half century has set at work. Our commerce, wealth, and our population, even, are simply the results of the new methods. They have advanced precisely in ratio to the value and efficiency of the agencies we have employed. These agencies, wherever introduced, have given a market to labor at its door. The corn that now supplies the Eastern markets, as well as those of Europe, is grown more than one thousand miles inland. This corn would not bear transportation over the ordinary roads of the West more than 150 miles. Over the railroad it is borne seven-fold that distance, at the same time yielding an ample profit to the producer. Wheat will bear a transportation 330 miles over an ordinary road. The great supplies to the Eastern markets are now grown 1,500 miles distant. But for railroads the area from which the Eastern markets could draw their supplies of cereals, without an enormously increased price, would have been upon a radius of 150 and 330 miles, respectively. With these works, owing to the economies that are being daily made in transportation, every acre of arable land on the continent, no matter how far distant from the great seats of consumption, may be cultivated with profit.

Previous to the opening of the Erie Canal in 1827, the tonnage crossing the Alleghenies range in both directions, and from the Lakes to New York, did not exceed 15,000 tons. This tonnage consisted almost wholly of merchandise going West—the cost of transportation being a complete bar to the movement, East, of Western produce. The only outlet of the interior was the Mississippi river, with its tributaries, the navigation of which was most tedious and hazardous, and so expensive as to leave little profit, either to the forwarder or the producer. The opening of the Erie canal was an epoch in the commerce of the country, but it exerted, for the first ten years, but little influence beyond the route immediately traversed. So late as 1836, the total amount of tonnage from the Western States coming through this channel to tide-water, equaled only 56,000 tons. Before the Western States could avail themselves of it, they had to connect their territories with it and with the Lakes by canals, or by the best earth roads they could construct. In 1846 the amount of Western produce reaching tide-water by canal was 419,000 tons. In 1851, the date of the opening of the Erie Railroad, and the removal of the restrictions on the transportation of freight on the New York Central Railroad, (which was first opened in the Fall of 1842,) the tonnage of Western produce on the canal had reached 965,993 tons. This tonnage measured to a very great extent the commerce then existing between the Eastern and Western States. In 1867 the united through tonnage of the five great lines between the two sections—the Erie Canal, the New York Central, Erie, Pennsylvania, and Baltimore and Ohio Railroads—equaled 6,000,000 tons, having a value of \$1,200,000,000.

At the date of the opening of the Erie Railroad, and the enfranchisement of the Central Railroad, there were 10,000 miles of railway in operation in the United States. The total tonnage of the merchandise transported over them could not have exceeded 5,000,000 tons, of the value of \$150 per ton, or of the aggregate value of \$750,000,000. On the 1st of January, 1868, the mileage of our railroads

had gone up to 39,000 miles. The tonnage of merchandise transported over them equaled 50,000,000 tons, having, at the above estimate a value equal to \$7,500,000,000. In a period of seventeen years the mileage of our railroads had increased nearly 400 per cent. their tonnage 1,000 per cent. with a corresponding increase in value. The population of the country, in the meantime, had increased from 24,000,000 to 36,000,000, or at the rate of 50 per cent. In other words, the increase of the commerce of the country borne upon railroads, has been 2,000 fold greater to that of our population. In 1851, the freight moved upon all the railroads equaled 417 pounds per head of population. Its value equaled say \$31 per head. In 1868 the tonnage equaled 2,777 pounds per head, having a value of \$210 per head. The increase of the tonnage of railroads for the period named has been wholly a creation of these works, as there has, at the same time, been a very large increase of merchandise moved upon the water courses of the country.

In 1851 the cost of the 10,000 miles of railway then in operation in the United States equaled \$200,000,000. In 1868 the cost of the 39,000 miles equaled \$1,600,000,000. The investment since 1851 of \$1,400,000,000 consequently, has been the means of an annual creation of a commerce having a value five-fold greater, or \$6,750,000,000. Every dollar invested in our railroads is the direct means of creating, annually, five times the amount, so marvelously potent are the new agencies, that science, within the memory of us all, has brought to the aid of man. In their use we have at last hit upon the method of nature—of Providence—and enjoy in some degree his infinite attributes, in wielding for our own use, the laws that uphold and control the material world.

The results achieved in a single State, will be found, on examination, to be quite as striking as is the aggregate for the whole nation. There were in the State of Illinois in 1851, 250 miles of railway, the cost of which was about \$7,500,000. The tonnage of these roads, only just opened, could not have exceeded 100,000 tons, having a value, say of \$15,000,000. At the close of 1867 there were 3,250 miles of railroad in operation in the State, having a tonnage traffic of at least 5,000,000 tons, possessing a value of at least \$750,000,000. The cost of the roads equaled \$130,000,000. The value of the commerce transported over them in one year equaled, very nearly, six times their cost. In 1851 the number of pounds of merchandise transported by these roads, equaled about 200 pounds per head of population. In 1867 the tonnage transported exceeded 4,000 pounds, or two tons per head. The value of the tonnage per head in 1851 was about \$15; in 1867 it was equal to \$330 per head. This unexampled increase was wholly due to the construction of railroads, as there has in the meantime been a very large increase in the tonnage on the water-courses of the State. It will be borne in mind that the tonnage of railroads of this State consists almost entirely of the products of agriculture which will bear transportation for only a comparatively small distance, over ordinary roads. These products are now forwarded, on an average 1,200 miles, before reaching a market.

The population of Illinois now makes one-fifteenth of that of the whole country. It now defrays one-fifteenth of the whole burden of the General Government. Its proportion of the Federal taxes equals \$24,000,000 annually. Its ability to pay this vast sum is

almost entirely due to the railroads that have been constructed within it during the past fifteen years. Toward their construction the Federal Government never contributed a penny. It did, however, in 1850, make a valuable land grant to the State in favor of the Illinois Central Railroad, which secured the speedy construction of this great work, and gave a wonderful impulse to the construction of other important lines. The additional price charged for reserved lands yielded to the national treasury the same sum that would have been realized if the grant had not been made. If by the use of similar means we can create another Illinois as far as concerns its population, wealth, and value in the Union, we shall in an equal degree lighten the burdens resting upon us. A vigorous movement in this direction, consequently, is the dictate of sound statesmanship, as well as of enlightened self-interest.

By what means shall we repeat the example of Illinois? The first condition exists in a vast, fertile, and unoccupied public domain. But, unlike Illinois, Iowa, and Minnesota, it cannot be reached by navigable water-courses, that were the routes of pioneers, and enabled them to gain foothold in these States, and in time to acquire sufficient strength to undertake enterprises not necessary to the maintenance of their own existence. But for these water-courses, the Mississippi River and the Great Lakes, these States, to-day, would have been in the condition of the boundless unoccupied plains of the Upper Missouri, of the Red River of the North, and of the Rio Grande. These States had almost every possible natural means of access. The artificial means came in good time. The former, however, were the necessary antecedents of the latter. But for the natural, the artificial works could never have been constructed.

Now, the proper duty and function of the Federal Government is to correct this oversight of nature in not giving the means of access to vast portions of our public domain. In place of great water lines it must supply what is far better—a great trunk line of railway, to enable the pioneers to gain a foothold upon the soil. It is only by means of such works that such foothold can be gained, and strength acquired sufficient, as in the Western States, to carry forward whatever enterprises may be necessary and proper for the promotion of their well-being. From the Western end of Lake Superior to the base of the Rocky Mountains, some 1,200 miles, is a vast fertile plain, but now wholly destitute of the means of transportation. The Missouri, though a valuable auxiliary to a railway, is of itself wholly inadequate to meet the commercial wants of the country it traverses. A railway from the lake to the mountains, which could be built at an expenditure of \$20,000,000 by the Federal Government, would open to settlement an area five times greater than that of Illinois. Now, with such an expenditure we should repeat Illinois many times, and just as quick as the movement of an adequate number of people and the creation of new industries could be effected. As already remarked the arithmetic of all this is perfectly simple. Supply the means of transportation, and the tide of population, flowing over the new territory, will keep pace with the progress of the railway, so that, when the mountains are reached, the territories now deserts will present themselves to Congress with all the conditions necessary to entitle them to become members of the Union.

These remarks apply with equal force in favor of a great line of railroad crossing the

continent upon the general routes of the 35th or 32d parallels. In this division of the Union is a territory embracing many hundred thousand square miles, large portions of it of great fertility, and with a vast mineral wealth to compensate for any barrenness of soil, for the want of suitable highways utterly cut off from settlement, and from commerce. Such a work would give an access to the northern provinces of Mexico, whose great wealth in mineral and soil is well known, as well as to our own territories. In this direction we can repeat, many times Illinois and Missouri, as well as in the North. The Southwest is the region which is to supply animal food and wool, while the Northwest is peculiarly adapted to the growth of wheat, which has a very limited belt in this, as in the Old World. The two sections are complements that will supply all the prime articles entering into domestic consumption.

Such is a plain statement of the proposition before us. Can we afford to allow vast tracts of fertile country to remain wastes simply for the want of a few millions of dollars, to be expended in opening them to settlement? Certainly not. The process of aiding such works will be a paying one from the start. The immediate increase of consumption by the inhabitants of the newly-opened territories of the manufactures of the older States will more than make up the proportion, to the latter, of any expenditures they may be called to make; while the taxes paid to the Federal Government by the inhabitants of the new Territories and States will speedily repay all the advances to be made. When it is considered what the Government would gain in the transportation of troops, supplies, and munitions of war, it is not probable that it would at any moment be a dollar out of pocket, while it is certain that in a very short time it would be repaid more than tenfold, for all the advances made.

The experience already afforded by the progress of the Union Pacific Railroad, perfectly sustains all the positions I have taken. The States of Kansas and Nebraska, from the advantages and stimulus supplied by this great work, with its branches, are fast repeating the example of Illinois. Their increase in population and wealth is much greater than was that of Illinois, at a corresponding period in the history of the latter. No one who examines the subject, can avoid the conclusion that already, in a pecuniary sense, has the Government gained immensely by the aid it has extended to these works. They have built up two great States, whose populations are the most profitable consumers of the products of the Eastern States, and whose contributions to the national treasury far exceed the interest on the bonds issued in their aid. In a few years such contributions will annually exceed the principal of such bonds, when the Government will be receiving, annually, cent per cent upon the investment it has made.

With such demonstrations before me, I cannot doubt the expediency of further aid by the Federal Government in opening up other sections far more fertile and valuable than that traversed by the Union Pacific Railroad. It cannot afford to allow an acre of valuable soil or mineral to be beyond the reach of commerce or of human life. All it has to do is to supply a few great trunk lines. From these offshoots will be made by private enterprise to every section, so as to supply the means of cheap transportation for any ton of produce or of mineral that may be raised.

Mr. Meier, of St. Louis, offered the following:

Resolved, That this National Convention respectfully and earnestly urges upon Congress the patriotic duty of granting immediate and adequate aid to perfect our system of Pacific Railroads.

"1. By the extension southwestward of the Kansas Pacific Railway from its present terminus on the great plains, nearly seven hundred miles from St. Louis, to a point in New Mexico, on or near the thirty-fifth parallel.

"The construction of the Atlantic and Pacific Railway from Fort Smith westward, through the Indian Territory and Northern Texas to the said point in New Mexico at the base of the Rocky Mountains.

"Next the construction of a line by the Southern Pacific Railroad Company of Texas from Marshall by the Valley of the Red River, to a proper point on the Canadian River to connect these with the above road.

"Next, the construction of a trunk line of railroad through New Mexico, Arizona, and Southern California, on the general route of the thirty-fifth parallel to the Pacific coast. That this system is demanded in view of the climate, the fertility and mineral wealth of the country traversed, the protection of settlements in these territories, and in view of the commercial necessities of all parts of the United States, the South being thereby put into the best communication with our mineral territories and the Pacific Ocean, by the proposed extension of their railway system westward from Memphis, Arkansas, Mississippi and Louisiana; and the middle and Northern States being afforded a short connection through a mild climate, with the Pacific and the mines of Southern Colorado, New Mexico, Arizona, the Northern States of old Mexico and Southern California, by the extension of the line from Kansas.

"2. The construction from Lake Superior to Puget Sound of the Northern Pacific Railroad, already chartered by the Government, which will give a short line of connection between the East and the Northern Pacific Coast.

"These lines in connection with the Union Pacific and Central Pacific Railroads, will form a complete system of Pacific Railroads entitled to National aid."

Mr. Meier, of St. Louis in support of his resolutions, said:

"MR. PRESIDENT—In presenting the resolutions of the St. Louis Board of Trade, I beg leave to accompany them with a few short remarks. The system of Pacific Railroads, for which the Government aid is asked, embraces, it is believed, all the lines from the Mississippi River and Lake Superior to the Pacific Ocean, that will be wanted for many years to come. It affords through lines from the Atlantic to the Pacific Ocean by three routes, about equi-distance from each other, and gives, by means of railroads in different States, already existing, or being constructed by private capital, a connection with all the important towns in the country, and the States East, South and North, and thus completes the system of railroad that should be entitled to the Government's aid, as private means alone are not adequate for such a vast undertaking.

"Very thorough surveys, made by the Union Pacific Railway Eastern Division, within the last two years, under the direction of General Wm. T. Palmer, with five different corps of engineers, at an expense of about a quarter of a million of dollars, have demonstrated

very clearly and fully that a good and practicable route for a railroad from the present terminus of said Pacific Railway in Kansas, about 700 miles west of the Mississippi River, via Colorado, New Mexico, and thence on to the thirty-fifth parallel, through Arizona to the Colorado River, and crossing that river, in a northwesterly direction by the Tehuatche-pass, and through the Tular Valley to San Francisco, can be had a route running in a latitude that secures it from interruption by snow in winter, and passing through fertile regions, rich in agricultural lands and minerals, both precious and other, as well as coal, and capable of sustaining a large population.

"The distances by the above road, by actual measurement, which can undoubtedly be reduced in its location by more detailed surveys, are as follows:

"From Kansas City to Sheridan, 405 miles; from Kansas City to the Rio Grande, 871 miles; from Kansas City to the Colorado River, 1,451 miles: from Kansas City to San Francisco, 2,026 miles; from St. Louis to San Francisco, 2,299 miles; from New York, via St. Louis, to San Francisco, 3,349 miles; from Chicago, via Kansas City, to San Francisco, 2,514 miles; from Sheridan to the Rio Grande, 466 miles; from the Rio Grande to the Colorado River, 580 miles; from the Colorado River to San Francisco, 575 miles; and the distance from New York, via St. Louis, Kansas, New Mexico, to the Pacific, would be about 200 miles shorter than by the Central Pacific, Union Pacific and other railroads from San Francisco, via Chicago to New York. The proposed resolutions make the route from the foot of the Rocky Mountains, on the eastern slope, a point of meeting for the roads intended to be built from Fort Smith, along the Canadian River, and from Marshall, Texas, along the Valley of the Red River, and a grand trunk line is thence proposed westward, near or on the thirty-fifth parallel, through New Mexico, Arizona, and California to San Francisco. It is a system that connects all the Southern, Eastern and Northern States with the States and Territories West and the Pacific, and is, therefore, strictly a national work, deserving of the assistance of the nation, and which cannot be carried out without that aid.

"The aid asked is a land grant and the loan of the Government credit; for the returns of the Union Pacific Railway, Eastern Division, show that half the amount retained by the Government for the business done has more than paid the interest on the Government bonds, and already a fair amount has been credited on the principal owed by said company—enough, if this continues proportionally, to liquidate the indebtedness to the United States many years before the bonds issued for the same mature. As the road, on its extension, reaches a fine country, having already a large population and considerable business, to which a large increase for the Mexican trade may be expected, it is fair to suppose that this favorable result will continue, and the issue of United States bonds for this road is only the loan of its credit, while the Government, by the enhancement of value of its Western Territories, its products and its mines, is largely the gainer, as also by the saving in transportation for its armies, munitions and mails. The saving of a few regiments of troops in the Western Territories will amount to more than the interest on all the bonds asked for this road, if the Government had to pay the whole and railroads, the great civilizers of the world, are the best means to put down our Indian

difficulties. The savage can not keep pace with the locomotive and the telegraph, and he has to submit or he will be annihilated. A false philanthropy will not sustain him any longer, and his cruel outrages must cease.

"It is true our national debt is large, and should not be increased except for such objects as require it imperitively; but for a measure such as is now before the Board, we can certainly loan the national credit, for we are not now poor enough yet to refuse it. The opening of our mines, and the developing of the great agricultural resources that now lie dormant West, for the want of proper communication, will be the best means to liquidate our debt. As a military measure, it has the approval of General Grant, as well as of Generals Sherman, Sheridan, Hancock, and other military commanders.

"The line from Lake Superior to Puget's Sound has greater merits than is generally supposed. It is less mountainous than the Union Pacific, and traverses a rich country adapted peculiarly to the cultivation of wheat and small grain generally, and it is the shortest route of travel to Japan and China. Of its merits, I leave it to gentlemen better able than myself to speak to this honorable assembly, and express the hope that, after a careful consideration, the resolutions offered may be passed by you, thus showing to the world the appreciation of this great national undertaking. Our Pacific railroads are now the admiration of the Old World, and their completion is an imperative necessity for the people of this great nation.

Mr. John P. Wetherill, followed Mr. Meier. He supposed there was hardly any need of discussion. All present understood the subject. But he desired as an eastern man to testify to his interest in the matter, and to indorse it most heartily. The great West, and all its vast resources have been developed by the great Western railway system. That system was extending now westwardly. Fort Riley, that only a short time since had seemed so remote to them was now near at hand, and wherever railroads penetrated, there towns and villages sprang up. The wealth of the entire country was thus enhanced. Only let these railroads be extended, and he had no fear of the payment of the United States bonds.

An amendment was offered by Mr. Drake, to add "The extension of the Sioux City Branch of the Union Pacific Railroad from Sioux City to the western end of Lake Superior."

Mr. Randolph opposed, at some length, the employment of public moneys for the proposed construction of railways.

Mr. Robertson Topp, of Memphis, was the next speaker. For 34 years he had been an honest advocate of internal improvements. He was the first in the Tennessee Legislature to contend for the idea. No greater improvements were known to him than railroads—*avant couriers* of civilization. He was in favor of extending them in all directions, binding thus the whole country more closely together. But he was disposed to think that there was in this scheme a St. Louis device to steal away the trade of Memphis, and to center all the traffic of the West in St. Louis. At Memphis, they desired the completion of the Memphis, Little Rock & Fort Smith road, and it was to further this scheme that he thought the Board ought to lend their aid. There were forty miles of dock overflow just beyond the Mississippi that had to be crossed; there were three or four navigable streams that must be bridged. From Little Rock to Fort Smith

the route was difficult and hard. Beyond that, however, came a rich and fertile country that ought to belong to Memphis. But toward this St. Louis is reaching out. Mr. Topp, concluded his remarks, which had been closely followed by the Convention, by explaining the situation by means of a map.

He proposed an amendment to strike out "Union Pacific Railroad," and insert "Memphis, Little Rock and Fort Smith."

General Clinton B. Fisk, of St. Louis, said that they had come together as a National Board of Trade. They were not present to look after any local interests. The St. Louis Board of Trade had given instructions to help all sections of the country. Mr. Topp, would have blistered his hands by applauding, could he have been present at that meeting.

The completion of the road was a measure of national economy. The Government saved last year nearly one million of dollars, in the transportation of freight. Gen. Sherman says if it was completed, one-half of the Indian force could be dispensed with. After a very eloquent little speech, Gen. Fisk gave way to

Mr. Walbridge, of New York, who said that he, too, came to the Board to look after the interests of the whole country. All parts of the country should have, would have their just share in the Government aid. He proceeded to argue at some length in support of the general propositions of the Committee.

Mr. Burwell, of New Orleans, said that the shipping interests of the seaboard would be more benefited by the freight which the South would yield than by any advantages that could possibly result from being relieved from the payment of duties on material used for shipping, which they sought to obtain, and advocated the extension of Southern lines.

The amendment of Mr. Topp was then voted on—yeas 11, nays 29.

Mr. Drake's amendment on being submitted to a vote, was also lost.

On the original motion, presented by Mr. Meier, the vote was, yeas 40, nays 15.

It being now half past 5 o'clock, on motion, the Board adjourned, to meet at half past 7 P. M. for an evening session.

Huron and Ontario Ship Canal.

[From the Toronto Globe of November 27, 1868.]

A meeting, called in the interest of the Huron and Ontario Ship Canal, was held in the St. Lawrence Hall, last evening. The body of the hall was about half filled. Among those on the platform were the Hon. G. W. Allan, in the chair; Messrs. Col. Denison, F. W. Crickmore, Wm. Michie, F. C. Capreol, Ald. Harrison, M. P.; James Beaty, M. P., and others. Among those in the body of the hall were Mr. John Charlesworth, John Leys, John A. Donaldson, Ald. Dickey, W. Ferguson, and others.

On motion Mr. Broomfield was requested to act as Secretary.

The chairman explained the objects of the meeting by stating that it had been called in pursuance of a requisition addressed to his worship, the Mayor. The object which those gentlemen who signed the requisition had in view, was to bring before the citizens of Toronto the position in which the petition to the Legislative Assembly and the Government, asking for a grant of land, had been placed in consequence of certain clauses of the Union Act, and certain rules of parliamentary usage which have not been anticipated, but which debarred the petition being received till it

first had obtained the sanction of his Excellency, the Governor in Council. He had been requested, in the absence of His Worship, the Mayor, to take the chair, and he did so with great pleasure, because he was always glad to have an opportunity of attending any meeting at which the directors of the ship canal were prepared to lay before the citizens any information in regard to the undertaking with which they were connected; and which, if carried to a successful issue, would be felt to be a benefit to the trade and commerce of this country. He thought that the gentlemen who had spent their time, money and labor in furthering the object which they considered to be fraught with such results were entitled to an attentive and impartial hearing. He presumed that the object which they had in view had obtained such favorable consideration that those present were prepared to strengthen the hands of the directors in any further application they might make, and he trusted that that application would receive the attention and consideration which the importance of the subject required. He was sure that the gentlemen who had persevered in bringing the undertaking to its present prominence, were entitled to every consideration, and he thought that that consideration was due in a very special degree to the gentleman who had devoted for many years all his energies to the completion of the work. He referred to Mr. Capreol—[cheers]—and in promoting what he considered to be a scheme of the utmost benefit to the country, he has shown an amount of perseverance and determination, such as few men possess. Whatever may be the ultimate result, this fact entitled him to the respect of his fellow-citizens. There were gentlemen present who came prepared to speak, and he would allow them to proceed, calling first on Ald. Harrison.

Mr. R. A. Harrison, M. P., in rising to propose the first resolution, stated that any measure calculated to produce prosperity among us was entitled to a fair hearing, and though there may, at the same time, be admitted benefits, there is no reason why there should be no discussion. In this way and in this spirit the claims of the canal were presented about two years ago to a public meeting, held in the same hall in which he now addressed them, and then, on that occasion there was considerable opposition. On that occasion there were those who were interested in the progress of our narrow gauge railways, and those gentlemen thought there was a conflict of interest between the two schemes. Now he thought they could see that both these schemes can work together for our good. When he (the speaker) first turned his attention to the matter of a ship canal, some of his friends thought that he was not doing right, for they said that Capreol was mad. [Laughter.] Well, he said, his madness at all events gave us the Northern Railway, and who can tell but the same madness can give us the Huron and Ontario Ship Canal. [Cheers.] He only wished that, in their community, they had more people as mad as Mr. Capreol. He (the speaker) looked upon his life as a great benefit to this Province and this Dominion. [Cheers.] His indomitable energy kept his scheme before the public, and he believed would carry it through.

There was no question of the magnitude of the enterprise, and there was no question that if the enterprise was at all possible, it would be of immense benefit, not alone to the citizens of Toronto, but to those of the Dominion of Canada. In this matter, the citizens were

not representing a merely selfish interest, because, in the prosecution of the enterprise, they had interests in common with all the people of the Province. He asked what is it that made Buffalo so large and thriving a place? It was the Erie Canal which principally assisted its prosperity. Was it not that same canal which drew away the business from its legitimate outlet, our own noble St. Lawrence? But the indomitable pluck of the Americans was madness so great that they had diverted a great part of the trade that belonged to this country. It was represented by those who were in favor of this scheme that a cargo leaving Chicago to go to New York will take somewhere about 21 days to reach its destination. It was said in addition that if this canal be built, a cargo can come from Chicago to Quebec in 8 or 9 days, and further, that it can be in Liverpool as soon as it can be in New York by the present route. [Cheers.] If this be true, it is a powerful argument in favor of the construction of the canal; if it be not true, let it be disproved. Then it appeared that by this route they could lessen the line of transport north one-half. They would escape the dangerous navigation of the St. Clair flats and the inevitable result will be to reduce freights and insurance, and when our eastern canals were enlarged to avoid transshipment between Chicago and Liverpool, it is impossible to contemplate the result. These advantages are all in favor of the trade through Canadian channels, and trade will go, in spite of man, where it will receive the most advantages. The speaker adverted to the advantages claimed for the proposed canal, as a link in the great highway between the Atlantic and the Pacific. It was represented that 1,468 miles of navigation existed in the route from the Atlantic to the Pacific, leaving only 511 of land carriage. If that be so, it was simply the natural highway through the British dominions. That highway will enable Europe to trade directly with China and Japan, and will carry that trade through our country—so vast and rich a stream of trade that no man can calculate its importance. Returning to the question of Erie transport, he said that the Erie was sorely taxed to take the trade that reaches Buffalo to New York, from the West. This great West, even in the arable land, is not more than one-tenth filled up. When the energy of even that tenth strains the Erie Canal so that there is not enough capacity, what is, he asked, to become of the other nine tenths? There must be another avenue, and there is no avenue as likely to be as advantageous as the Huron and Ontario Ship Canal. These were the arguments advanced in favor of the scheme, and taking it for granted that they all met with a common anxiety, he felt that they could and would do a great deal toward its accomplishment. They all must feel that now was the time to commence—that there is a prosperity existing, and we will go on prospering and to prosper, till our fondest wishes are realized. Toronto is never backward in assisting an enterprise that is for the good of the city, whether the railway be broad or narrow gauge, it will never appeal in vain to the citizens of Toronto if it has merit; but here is an enterprise that is larger, and yet will not ask one cent to build it. What, however, will it be for the city? In the first place, we were, he said, promised an expenditure of forty millions of dollars—a good round sum—and that expenditure is to take place under our very noses, and a good part of it would go into our very pockets. When sixty mil-

lions were spent in the Provinces on the Grand Trunk, the increase to our wealth was so great that we thought we should never be poor again; but this company promised to expend forty millions at the very doors of the citizens of Toronto. The change this was expected to effect was an increase of the number of laborers. Thus money will draw population; and this increase of our population will work a corresponding reduction of our taxation. The true way, next to economy, in avoiding the effects of taxation, is to increase our number of taxpayers, and any measure that is calculated to add to our population is a measure that will decrease our taxes. There will follow good prices; and when the working man is up, all classes are up; so when labor suffers, all suffer; when labor is prosperous all men prosper. The increase in the value of property, he claimed to be another result, and property in the city, he added, was advancing, and as quickly as houses are built they are filled. How much more would that be the case if the canal was being built? Our present prosperity would be nothing to it; and one result he claimed for the canal was the water privilege it would bestow—while another was the pure water it would supply for the use of the citizens, besides, by offering better protection, effect a reduction in the price of insurance. After adverting more fully to these advantages, he referred to the opponents of the scheme, who, he said, were fewer in numbers than when he last addressed an audience on the subject two years ago. Some were then opposed, through personal hostility to Mr. Capreol; but no man should be influenced by any personal hostility against a man if his scheme is a good one. Capreol, with all his energy, had enemies, but before two years had passed over, he hoped to see them all disciples of his. The entire press of the city were in favor of the scheme, except one; and that exception had changed from antagonism to a dignified neutrality. But he knew that the journal he referred to was as interested as any in the welfare of the city, and wished it to prosper in every way possible. Referring to the arguments advanced by the opponents of the scheme as to its impracticability, he stated that every similar enterprise of magnitude was opposed by men of that class; yet, whether such was true or not, was not a question for them, for they would not have to pay for it. It was one to be determined by engineering skill, and he referred to Colonel Mason, of Chicago; Mr. Kivas Tully, Mr. Sykes and others, as having reported favorably on its construction. In answer to the other argument advanced—that it would never pay—he remarked that it was the old style of argument exactly. But who, he said, asked these people to pay anything for it? The men who are going to put money into it are the men to judge; and if they were men who had made money by similar enterprises, they were better judges than we whether it will pay or not. When the narrow gauge scheme was before the Legislature, the broad gauge men opposed it, because, they said, it would never pay; what was the answer? If men are willing to put their money into it, it is nothing more than right that they should be allowed to do so. But the canal asked for no money; it simply asked for ten million acres of wild land, some where up in Wild Cat Swamp, or elsewhere, for forty million dollars; was it not our interest to settle this land at the earliest possible time, and as soon as possible to get settlers into it. Are these men going to take that land out of the country or going to

eat it? No, they were going to improve it, just the thing we wanted; we wanted emigrants and here was a scheme to bring settlers here and give us \$40,000,000 besides. Where is the man, the Government, the Legislature that can oppose that argument? [Cheers] After some further remarks he moved:

"That this meeting having learned that the numerous petitions that have been presented, praying for a grant of wild lands in aid of the construction of the Huron and Ontario Ship Canal, have been rejected, in consequence of a technical rule of the House, which requires all petitions affecting the revenue of the province, to be brought before the House by the Governor in Council, are of opinion that it is desirable that a delegation be nominated by this meeting to wait on Hon. M. C. Cameron, one of the members of this city, and request him to bring the said petition, or such others as may be presented, before the Governor in Council, and that the said petition may be sent from thence to the House, or otherwise so dealt with that action may then be taken thereon, with a view to the grant of the prayer contained in the said petition."

Mr. James Beaty, who seconded the resolution, thought that all enterprises which had preceded this one were far behind it in importance. He did not look upon this as a local enterprise at all, and it should not be considered such. He believed that the man living in Halifax would be benefited as much as we. If the Government of Ontario were honest in their desire to encourage emigration, here was the scheme for them. The corporation did not ask of the Government money, they only asked for wild lands, and were we to throw obstacles in their way? The Government was with us and would give us these lands, because they wished them to be occupied by immigrants. Only let the Government see that the people were willing that the land should be used for this purpose and the Government would soon grant it.

Erie & Oswego Canals.

The National Board of Trade at its recent session, adopted the following sensible resolutions relative to the Erie and Oswego Canals:

"WHEREAS, The abundant and steadily increasing products of the North-western States, and the unexampled increase of business upon all the lines of communication between the West and the East, the annual measurement amounting to many millions of tons, and the rapidly increasing foreign and domestic demand for the staples of our great food producing States, and also for the product of the forest and multifarious regions; and,

"WHEREAS, The Erie canal, since its construction, has been the great thoroughfare and channel of commerce connecting our inland seas with the Atlantic ocean, and being not only the cheapest mode of transport, but the main regulation in cost of transit of all the lines of transportation between the West and the East; and,

"WHEREAS, By the rapid development of the Western States, and the annually increasing movement of the great staples of the country, the Erie canal is frequently taxed to its utmost capacity, its tidal tonnage having increased in volume from 221,447 tons in 1842, to 3,000,000 tons in 1868, nearly eighty per cent. of which being the product of the

North-western States; and,

"WHEREAS, By the enlargement of the Erie & Oswego canal to a size sufficient to admit the passage of steamers of six hundred tons would increase the capacity from three millions of tons to nearly ten millions of tons per annum, and not only cheapen the price of transportation nearly fifty per cent., but lessen the time of transit in the same proportion, thereby greatly encouraging the settlement and cultivation of vast fertile regions in the far Northwest, and giving cheap food to our Eastern States, and enabling us to compete successfully with European food producing countries in the markets of the world, It is therefore,

Resolved, That this National Board of Trade hereby recognize the great importance of the Erie canal, and its truly national character as the great highway and channel of inter-communication between the North-western and the Eastern States."

"**Resolved,** That this Board would view the adoption of some settled policy of the Legislature of New York, having for its object the enlargement of this great water highway, thereby cheapening and facilitating the movement of the productions of the country, as an evidence of a wise, liberal and national statesmanship."

Receipts of the Western Union Railroad Company for the week ending November 30:

	1868.	1867.	Inc.	Dec.
Freight.....	\$9,246 12	\$12,899 81	.....	\$3,653 69
Passengers.....	4,689 60	5,182 90	.....	493 30
Express and Tel.	350 00	576 00	.....	226 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$14,660 72	\$19,027 71	.....	\$4,366 99

Receipts from January 1, to November 30:

1868.....	\$719,501 14
1867.....	720,238 11
Decrease.....	\$736 96



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BACON'S PATENT.

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO. OF NO. FORMS.	PRICES.	SIZE NO. OF NO. FORMS.	PRICES.
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 256	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

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Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

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L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati.
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati.
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton.
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis, Aug. 2, 1886.

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TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	4,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

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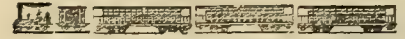
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On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 18:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINK, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:02 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:20 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passes Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

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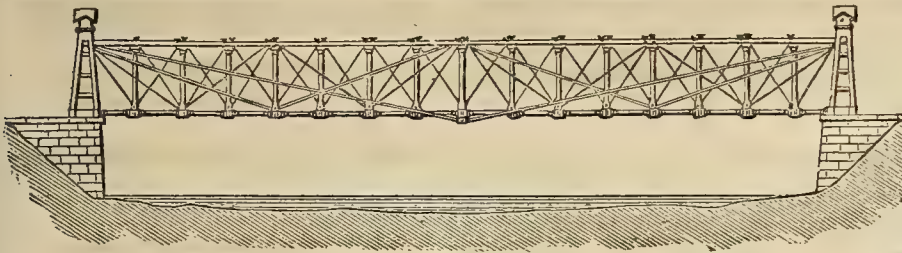
	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.
Sleeping Cars by this train for St. Louis and Chicago.		

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

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F. B. LORD Gen'l Ticket Agent.



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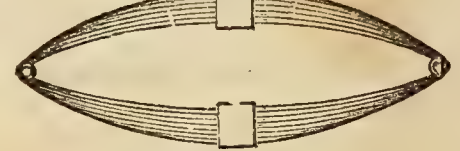
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Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

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	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

G. E. FOLLET Gen. Passenger Agent.
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Best Route to St. Louis and Chicago

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Great Through Passenger Route from CINCINNATI to

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 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North west and South-west.

5 THROUGH TRAINS DAILY,
 (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.20 am	9.30 am
Cairo and St. Louis Express.....	7.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
 Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Cannonsville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

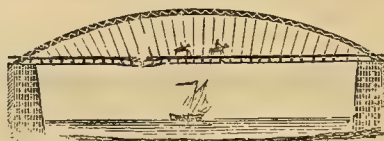
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The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

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Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

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Philadelphia, Wilmington & Baltimore**RAILROAD!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
 Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.
 Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

CINCINNATI, THURSDAY, DECEMBER 17, 1868.

The Pacific Railroads, and their Commercial Value.

We recently said in the RECORD, there ought to be *six trunk lines* of Pacific Railroads; but, that we would compromise on *three*: viz, the Northern, Central, and Southern. This, no doubt, seems to a great many people a bold, presumptuous, and altogether unnecessary scheme. Those people, who think the Government ought to do nothing for Public Improvements; those people, who think that the lands given to railroads are taken from the patrimony of working men; those people, who think the Government ought to do nothing to improve its own domain, will all, no doubt, think that it is very wrong in the Government to advance even its credit to railroads, through its vast domain. We are of a different opinion, and feel highly pleased that the National Board of Trade has endorsed our views on this subject. They have gone much further than we did; and have really endorsed *five* routes; but, two of them are made branches of the others. The resolution of Mr. MEIER, of St. Louis, which was passed by a vote of 40 to 15, asking the aid of Congress for the following routes:

1. The extension of the Kansas Pacific Railroad to a point in New Mexico, in the 35th parallel.
2. The construction of the Atlantic and Pacific Road, from Fort Smith westward, through the Indian Territory, to the said point in New Mexico.
3. A line by the Southern Pacific Railroad of Texas, from Marshall to the Valley of Red River, to a point on the Canadian River, to connect with the above road. It will be observed, that these three will have a *common trunk*, from a point in New Mexico, to the Pacific. There are therefore three branches of a common trunk.
4. The said Trunk line, through New Mexico, Arizona, and Southern California, on the general route of the thirty-fifth parallel.
5. The Northern Pacific Road, from Lake Superior to Puget's Sound.

These Roads will, as remarked by Mr. MEIER, afford through lines from the Atlantic to the Pacific, by three routes, equi-distant from each other, and gives, by their branches, and by means of railroads in their different States, existing or to be made, a connection with all the important towns in the country, and the States, East, South, and North, and thus *completes the system of Railroads that should be entitled to the Government's aid*; for, it is obvious, that through the vast, wild, and rugged domain of our Northern, Central America, these roads will *not* be made without Government aid. Can the country afford to do without them? We think not.

Gen. WALBRIDGE, in his able speech, very justly said:

Can we afford to allow vast tracts of fertile country to remain wastes simply for the want of a few millions of dollars, to be expended in opening them to settlement. Certainly not. The process of aiding such works will be a paying one from the start. The immediate increase of consumption by the inhabitants of the newly opened territories of the manufactures of the older States will more than make up the proportion, to the latter, of any expenditures they may be called to make; while the taxes paid to the Federal Government by the inhabitants of the new Territories and States will speedily repay all the advances to be made. When it is considered what the Government would gain in the transportation of troops, supplies, and munitions of war, it is not probable that it would at any moment be a dollar out of pocket, while it is certain that in a very short time it would be repaid more than tenfold, for all the advances made.

Now, in reference to the advance of money by the Government, we say, at once, that nobody asks the Government to *give* money, which is the idea of the objections. The Roads do ask for a Government Grant of *lands*, which hardly any one objects to; but, what the roads want, and what the Government can do, without one dollar of loss, in any event, is just what any capitalist would do on any common railroad. It is simply to give the Government Bonds on a *First Mortgage* on the whole road. This is so reasonable, that we do not see how any one can reasonably object to it.

We give the propositions in the very briefest terms:

1. The Government to advance its aid to the extent of \$25,000 per mile, on the First Mortgage Bonds; the mortgage to cover the roads, machinery, and needed Railroad Lands.
2. The Companies to issue Land Bonds, secured by their lands; the lands to be sold for the Bonds only.
3. The Lands to be classified, at low prices, so as to prevent a monopoly at high prices.
4. The Government to *retain the right* to fix reasonable rates of tariff; and running arrangements with Branch Roads.

It will be seen, that these cover the whole ground of objections, heretofore made (and not without reason,) to the advance of Government aid. *First*, the Government gives nothing; for after the experience of the Union Pacific, no one can doubt that a *First Mortgage* on these roads is ample security; nor, is there any doubt of the ability of these roads to pay the interest. The objection of a monopoly of lands is also avoided; and another point will be secured of great value, the power of other roads (acting as branches), to connect with the main trunk; and also the power of the Government to prevent an imposition on the public by extravagant rates of tariff. We can not see, in view of the immense and obvious need of these Pacific Roads, that any man can reasonably object to such a scheme of construction.

Let us now turn to another point. The construction of the Northern Pacific Railroad will render absolutely necessary the Toronto and Georgian Bay Canal in Canada, which will be one of the greatest improvements of the present generation. By making this a Ship Canal for about 50 miles, there will be a ship navigation from Lake Superior to Lake Huron, saving no less than 350 miles of circuitous and shallow passage by Lake St. Clair. So also of the New York Canals, the making of the Northern Pacific will compel the enlargement of those canals; and thus secure to New York the great benefit which she has for years expected in vain.

Some of the commercial views of this subject have been so ably expressed by Gen. WALBRIDGE in the Board of Trade, that we can do nothing better than to reprint some of his remarks. He said:

Previous to the opening of the Erie Canal in 1827, the tonnage crossing the Alleghenies range in both directions, and from the Lakes to New York, did not exceed 15,000 tons. This tonnage consisted almost wholly of merchandise going West—the cost of transportation being a complete bar to the movement, East, of Western produce. The only outlet of the interior was the Mississippi river, with its tributaries, the navigation of which was most tedious and hazardous, and so expensive as to leave little profit, either to the forwarder or the producer. The opening of the Erie canal was an epoch in the commerce of the country, but it exerted, for the first ten years, but little influence beyond the route immediately traversed. So late as 1836, the total amount of tonnage from the Western States coming through this channel to tide-water, equaled only 56,000 tons. Before the Western States could avail themselves of it, they had to connect their territories with it and with the Lakes by canals, or by the best earth roads they could construct. In 1846, the amount of Western produce reaching tide-water by canal was 419,000 tons. In 1851, the date of the opening of the Erie Railroad, and the removal of the restrictions on the transportation of freight on the New York Central Railroad, (which was first opened in the Fall of 1842,) the tonnage of Western produce on the canal had reached 965,993 tons. This tonnage measured to a very great extent the commerce then existing between the Eastern and Western States. In 1867, the united through tonnage of the five great lines between the two sections—the Erie Canal, the New York Central, Erie, Pennsylvania, and Baltimore & Ohio Railroads—equaled 6,000,000 tons, having a value of \$1,200,000,000.

Now, in 40 years, the tonnage West increased 400-fold, from 15,000 to 6,000,000 tons. This is 10 per cent. each year. Now, in five years, if a Northern Pacific Road were made from Lake Superior, the trade of Lake Superior West will have increased 50 per cent.; and in 10 years 100 per cent. What a view of Western commerce! And, how certain it is that *such a road* must be profitable!

We conclude with another paragraph from Gen. Walbridge:

At the date of the opening of the Erie Railway, and the enfranchisement of the Central Railroad, there were 10,000 miles of railway,

in operation in the United States. The total tonnage of the merchandise transported over them could not have exceeded 5,000,000 tons, of the value of \$150 per ton, or of the aggregate value of \$750,000,000. On the 1st of January, 1868, the mileage of our railroads had gone up to 39,000 miles. The tonnage of merchandise transported over them equaled 50,000,000 tons, having, at the above estimate a value equal to \$7,500,000,000. In a period of seventeen years the mileage of our railroads had increased nearly 400 per cent. their tonnage 1,000 per cent. with a corresponding increase in value. The population of the country, in the meantime, had increased from 24,000,000 to 36,000,000, or at the rate of 50 per cent. In other words, the increase of the commerce of the country borne upon railroads, has been 2,000 fold greater to that of our population. In 1851, the freight moved upon all the railroads equalled 417 pounds per head of population. Its value equaled say \$31 per head. In 1868 the tonnage equaled 2,777 pounds per head, having a value of \$210 per head. The increase of the tonnage of railroads for the period named has been wholly a creation of these works, as there has, at the same time, been a very large increase of merchandise moved upon the water courses of the country.

In 1851 the cost of the 10,000 miles of railway then in operation in the United States equaled \$200,000,000. In 1868 the cost of the 39,000 miles equaled \$1,600,000,000. The investment since 1851 of \$1,400,000,000 consequently, has been the means of an annual creation of a commerce having a value five-fold greater, or \$6,750,000,000. Every dollar invested in our railroads is the direct means of creating, annually, five times the amount, so marvelously potent are the new agencies, that science, within the memory of us all, has brought to the aid of man. In their use we have at last hit upon the method of nature—of Providence—and enjoy in some degree his infinite attributes, in wielding for our own use, the laws that uphold and control the material world.

Cincinnati and Its Enterprises.

We happened, the other day, to take up a number of the *Western Monthly Magazine* for 1834. It was like a voice from the cradle of history. There was an account of the public meeting at the Front Street Exchange, to form a great railroad from Cincinnati to Charleston. That is thirty-four years ago, and how much of that great railroad is made? The Blue Ridge Railroad is crawling up to Rabun Gap, but will not get through without more aid, which the State Government of South Carolina is now endeavoring to obtain. In the meantime, Cincinnati has actually got one hundred miles. Thus, in thirty-four years, Cincinnati has advanced at the rate of three miles a year toward Charleston. This is a commendable enterprise—something which must redound to the credit of this great city. In that time all the railroads which now cross the mountains, or go by the lakes, have been finished, and all of them have tended rather to take trade away than bring it to Cincinnati. In that time New York City has gained half a million of inhabitants, and Chicago has grown from nothing (for its first warehouse was built in 1834) to

two hundred thousand people. There is no need of comment on this state of fact. It almost exceeds human credulity that a city of the wealth and strength of Cincinnati should be so utterly indifferent to its own interests. Yet, so it is, if Cincinnati gets three miles farther South every year, it will reach the Tennessee line in half a century, and, therefore, the Cincinnati of the next century may be congratulated on the prospect of a great trade with the South.

It was somewhere about the same time—1834—that two fine squares in Cincinnati, belonging to the United States Bank, (from Seventh to Ninth and Walnut to Race) could be had for a low rate, and it was proposed to make a public square there. It was put to popular vote and rejected. Suppose it had been bought and held as a public square, what would it be worth to the city now, as property and as a basis of credit. A city gets credit for its public property; and, if it were compelled to sell its public grounds, they would be a speculation. But Cincinnati has no parks, except two or three little bits of places. As to Eden Park, as it is called, it never will be used as such by the people. It is too difficult of access. We do not say that it is necessary to get a great park immediately, but we do say that it will be a great speculation, for, little enterprise as there is, the city will grow enough to make all the outside property far more valuable than it is.

Another of the memories brought up by old magazines, is that of the Water Works. The first Water Works were owned by Col. Samuel Davies, afterwards Mayor of the city, in whose hands (although he did the best he could) they were but a trifling affair. We recollect the sudden alarm of a great fire, in which so little reliance was had on the water works, that a line of citizens was formed through Main street, in which Mrs. Alexander Drake, the actress, was a conspicuous person.

About the time to which we refer, the Water Works were sold to a company of five gentlemen, viz.: William Green, Geo. Graham, Davis B. Lawler, John P. Foote and, we believe, Nathan Ware. This company held the Water Works for several years, and discovered a secret, which, we believe, has applied since, equally well to the city. It was this, that they could make no dividends, although they really made money. How was that? Simply this: that there was an absolute necessity of laying new pipe every year. The company made money, but was compelled to lay it out in new pipe and new machinery. The result was they charged up so much profit on their books, but it was all added to the capital and not of dividends. This would not suit individuals who needed their income, but would suit the city. At length Messrs. Foote, Greene & Co. found they had best sell to the city, and they did, although the city for several years refused to buy. At length

the city bought the water works for about ten times as much as they could have been bought for fifteen years before. But the company who held the works made no great speculation, for they only made the increase of capital by the added income. We hear now of new water works measures, and there are two elements of the problem which must be taken into consideration. The first is *pure water*; the second is a reservoir high enough to distribute it on Mt. Auburn and Walnut Hills. The Garden of Eden has been bought with a view to this, but where is the water to come from? If it comes from the present Water Works, or any thing in the neighborhood, it will be a failure. Pure water can not be got below Columbia. If the object be to get pure water, there are but two ways—the Great Miami river, above the Milledown dam, or the Kentucky side, above the mouth of the Little Miami. We understand the latter plan is under consideration. But whatever plan is adopted, it will be worthless if it is not so arranged as to supply the future Cincinnati, which is to be on the hills.

We have traced out the public enterprises so far, as to show that Cincinnati is by no means a fast city. It will never be ruined by sudden and dangerous enterprises. Taxes are undoubtedly high, but they are not half as high as in the City of Toledo, which goes on the principle that when certain public enterprises are absolutely necessary to the public prosperity, that the taxes are paid back in the resulting profits of the enterprise.

In regard to the Southern railroad, a little bird informs us there is actually a negotiation going on to construct this road. So many schemes of that sort have failed, that we are in the condition of a character in one of Dickens' novels, who had been told a great deal and very often about a Mrs. Harris, who never appeared, till, in a fit of great doubt, he exclaimed, that he "didn't believe there was any Mrs. Harris." Now, we still believe in Mrs. Harris, and though hope deferred maketh the heart sick, yet we still hope to see Mrs. Harris in the shape of a Southern railroad. One thing we do know, that there is little time left in which Cincinnati can retrieve her fortunes and restore her prosperity. Let her be up and doing while it is called to-day. A very moderate *bonus* from Cincinnati and the counties on the line, will enable a company of capitalists to go forward and construct the work, without danger of loss. We trust that events may so concur, that this work which, in our humble opinion, will be worth an hundred millions to Cincinnati, may at last be made. In any possible aspect of the case, it will be worth while to try the experiment.

Another Enterprise—The Bridge.

Through the kindness of the *Commercial* in loaning us the plate and the description, we are enabled to furnish a view and account of the bridge intended to be built over the

Ohio, near the mouth of Deer creek, on the best ground, as we think, to be found for the purpose at Cincinnati. We append the remarks of the *Gazette* on the bridge and the Southern railroad. We disagree with any suggestion of building the bridge on the west side of the city, for three reasons: 1. That the site on the east side is decidedly best. 2. That there is an absolute necessity of connecting the Southern road with the powerful railroad interests centering on the Pennsylvania road and the Little Miami. 3. Because we think that eventually there must be a bridge to connect the great Western and North western lines, and that point ought to be opened in the first place, and the present bridge built where it will be most useful at the present time.

The Cincinnati and Newport Bridge.

This view represents the proposed appearance of the projected bridge for railroads, vehicles and foot passengers, that is to span the Ohio river, between Butler street, in Cincinnati, and Saratoga street, in Newport, Kentucky. To the right, looking down stream, is the Ohio shore, and to the left that of Kentucky. Seen beyond the railroad bridge, a quarter of a mile or more, is the present majestic suspension bridge. The Little Miami elevator, which conceals the Cincinnati end of the new bridge, is nearly two squares east of it. The bridge, as planned, is of wrought iron with stone piers, five in the water, two on land on the Cincinnati and one on the Newport side.

The stone-work of all the piers is to be of the best limestone, up to the line of high water, and freestone above that, excepting the two piers of the middle, or long span, which will be entirely limestone. Much of the stone for the piers has already been quarried. George A. Smith, of Cincinnati, has the contract for the stone-work.

The bridge proper will be of the best wrought iron, in lower and upper chords, uprights, braces, &c. No timber will be used save in the flooring. The Keystone Bridge Company has the contract for the bridge proper, which will be constructed after the popular and very safe patent of Linville & Piper, now in quite general use in this country. It was upon this plan that the Steubenville bridge was constructed. As we understand this patent, any strain on any portion of the bridge is distributed over the entire superstructure. By means of the braces and uprights, the upper and lower chords are oppositely affected by weight. The tons of tensile strain on the lower chord will produce a compressive strain of ten tons on the upper chord—the one effect, in a great measure, destroying the other.

The floor of the main span, on which the train is seen, will be about 100 feet above low water. This span is planned at a length of 400 feet; the one next south is 240 feet, and the others as near 200 feet each as the division of distance will admit. There will be seven spans in all, with the eight piers. Beyond the Front streets of both Newport and Cincinnati the grade to the cities will increase, that of the wagon tracks being much sharper than the longer and easier one of the railroad.

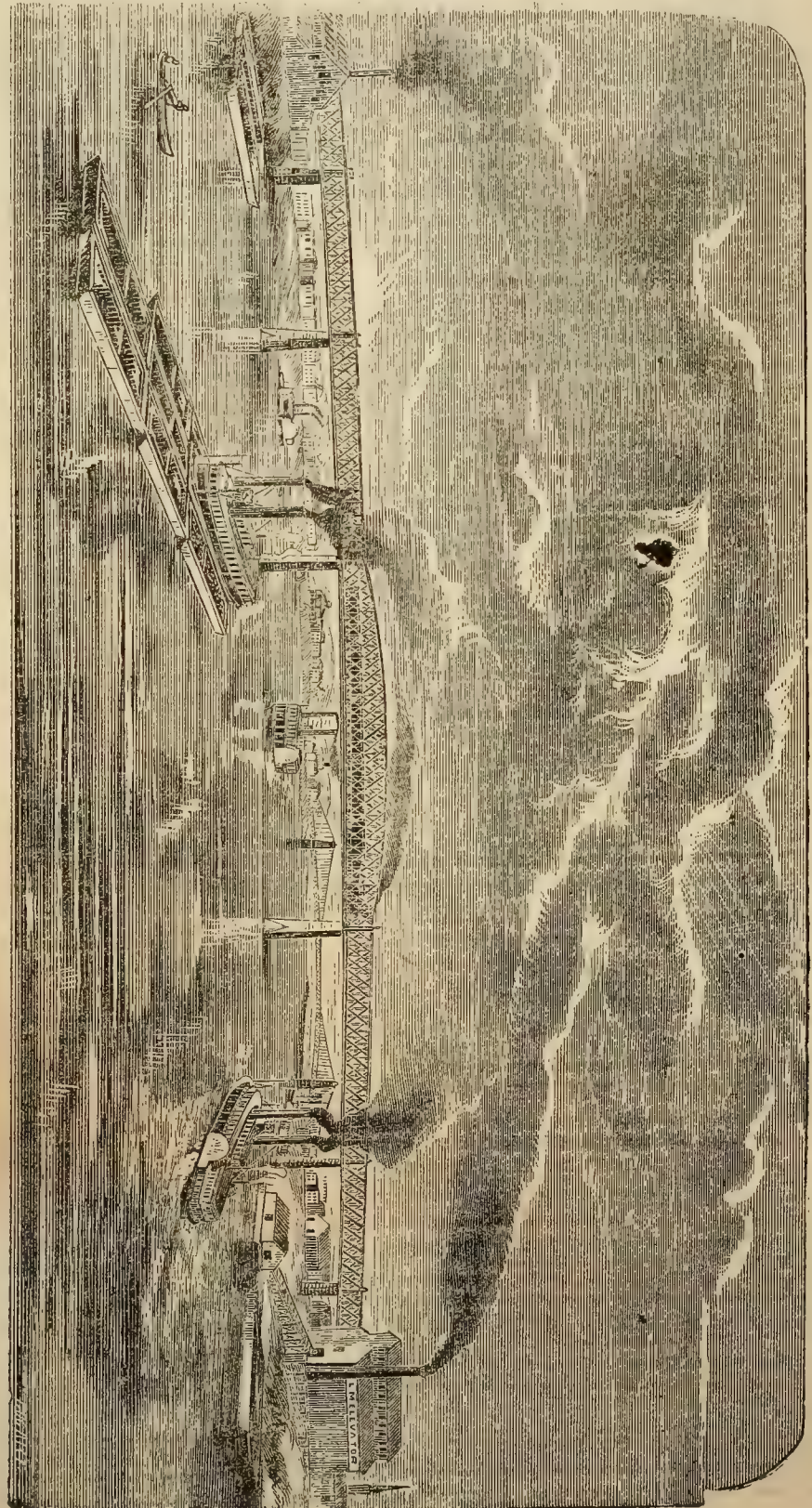
The bridge will be forty-one or two feet in width, with thirteen feet in the middle for trains, one way on either side for cattle and

vehicles, and on the outside of these still, the passages for foot-passengers.

This bridge will be built by the Newport and Cincinnati Bridge Company, organized with a capital of \$1,200,000, and having the following as its Board of Directors and officers: Alfred Gaither, President; Albert S. Berry, Vice President; Charles H. Kilgour, Secretary and Treasurer; M. J. King, William

Ringo, W. H. Clement and T. G. Gaylord.

They contemplate having a train cross this bridge by the 1st of December, 1869. J. H. Linville, of Philadelphia, is the chief engineer and supervising architect. Mr. John C. Wilson is the resident engineer, with an office at the north west corner of Pearl and Butler streets, which, by the way, is in the line of the improvement—*Cin. Com.*



The Southern Railroad.

The fact that the Erie Railroad Company has leased the Atlantic and Great Western Railroad has already been announced. This gives to the Erie management a continuous broad gauge line from New York to this city; and the next step, we presume, will be an arrangement with the Ohio and Mississippi Railroad, which will extend that line to St. Louis.

The Pennsylvania Central also has a line to this city *via* Pittsburg and Columbus, and will soon have a continuous narrow gauge line to St. Louis.

Thus we have two great and powerful competitors for the trade of this section.

The next question is, which of these corporations will secure the Southern railroad, soon to be constructed through Kentucky and Tennessee, to connect with the Southern system of railroads. As this road, when completed, will form the shortest line between the Eastern seaboard and the South, and thereby command the trade of that section, the prize, it must be acknowledged, is one worth contending for. The Pennsylvania Central has been quietly working, through the Little Miami Company, for a bridge across the Ohio above this city. That would give the Pennsylvania Central an exclusive connection with the Southern road, and would, of course, secure to it the Southern trade. But the managers of that corporation did not strike fast enough. They should have undertaken the construction of the Southern road. The people along the line of that road and in this city were ready to contribute largely toward the work, and it might have been constructed upon a paying basis had it been vigorously taken hold of by responsible parties. The road has not been built. Neither has the bridge been constructed.

Now comes the Erie managers with their broad gauge line entering Cincinnati at the west. Will the managers of this road permit the Southern prize to slip through their fingers? Rather will they not strike for a bridge below the center of the city? Will they not also strike for the Southern railroad? More important would this be, by far, to the Erie road than a connection with Chicago or any other place. It would secure to it almost the entire trade of the South, and in this it would have no successful competitor. Besides, in this movement, the Erie Company would be backed by all the Northern and Western roads centering at Cincinnati, while the Pennsylvania Central would have only the Little Miami to help paddle its canoe. In such a contest the Erie would be sure to come out ahead.—*Cin. Gazette*.

A Grand Scheme Realized.

In our issue of June 4, we copied from the *Philadelphia Railroad Register* an account of negotiations looking to a practical union of interests among the Pennsylvania Central, Pittsburg, Fort Wayne and Chicago, and Pittsburg, Cincinnati and St. Louis roads—of the latter of which the "Panhandle" forms an integral part. The arrangement was consummated last week in New York, after a meeting of the joint managements, lasting several days. The *New York Tribune*, of the 5th, devotes a paragraph to it in these terms:

"The Pennsylvania Central Railroad has at last effected the actual consolidation with it of its two main Western connecting routes.

The Pittsburg, Fort Wayne and Chicago, and the Pittsburg, Cincinnati and St. Louis roads thus become practically a part of the Pennsylvania Central, and over one thousand miles of railway, stretching from the seaboard to the great cities of the Mississippi Valley, pass under the control of a single corporation. The nature of this gigantic combination, effected by the great Pennsylvania line, may be better comprehended in the light of the fact that it brings under one management property valued at two hundred and eighty millions of dollars, and reaches for freight and passengers from Philadelphia to Chicago, Cincinnati and St. Louis."

Whether the arrangement be, as above stated, of the nature of a corporate consolidation, or merely a compact among companies still retaining their individual identity, under their several managements, is of no importance so far as the practical results are concerned. These may be comprehensively stated as effecting the abolition of all competition between whatever points are connected by any two lines of the co-operating companies, by giving the entire business to the shorter line, the other two lines equitably sharing the proceeds.

We copy the above from the *Chicago Railway Review*. It furnishes another reason why the bridge should be built at once, and built to connect with the Little Miami Railroad, for the tendency of this movement is to carry every thing possible on the Pennsylvania road, by way of Chicago. It is absolutely necessary, then, that we should facilitate, as much as possible, the transit of the Pennsylvania Railroad to the South.

The Pacific Railroad Question

[From the Cincinnati Commercial of December 17, 1868.]

A few days ago we gave our reasons for believing that the Nebraska Pacific Railroad will be disabled by snow during four months of each year. We pointed out, in that relation, the necessity of pushing on the Kansas Pacific along a meridian of latitude central to the whole country. Even sooner than we expected the winter difficulties along the northern route have set in. The most remarkable fact in connection therewith is the following, telegraphed by the Associated Press:

"SAN FRANCISCO, December 10.—The Union Pacific Railroad is reported blocked with snow since the 4th inst., no train having arrived at Bryan, where the stage receives the overland mail, since that date, and none have arrived at Cheyenne from the West.

"The President of the Central Pacific Railroad telegraphs as follows from Salt Lake, 12th:

"I think it inevitable that we must pass through this valley and a succession of fine valleys south, and make connection with the Smoky Hill route as the only practicable winter line. The short distance we pass through deep snow we can easily pass by covering, but the distance and great elevation on the Union Pacific road is too long to make covering practicable."

So the western half of the Pacific Railroad now on the eve of completion, having protected its line with snow-sheds, and erected a great lodging-house near the summit of the Sierra Nevada for four hundred men, whose sole duty is to keep the track on the moun-

tains free from snow blockade during the winter, is anxious to work into milder latitudes. Its President proposes that the company turn its back on the Nebraska Pacific, run down one of the many available valleys that traverse Nevada and Utah, from north to south, in order to form an Eastern connection with the "Smoky Hill route"—in other words, the Kansas Pacific.

This is another verification that our first Pacific Railway is a geographical blunder. The Kansas line, with its projected continuation, is the true trunk Pacific Railroad of the future, and Congress can not fairly and intelligently examine the subject without reaching this conclusion.

The Kansas and Colorado Pacific Railway Bill.

The House Committee on the Pacific Railroads had a meeting this morning to consider the following important bill, which was passed by the Senate July 25, and which is now in the House on the Speaker's desk. The committee will recommend its passage with amendments:

"Be it enacted, &c, That the Denver Pacific Railway and Telegraph Company, a company incorporated under the laws of the Territory of Colorado, is hereby authorized to connect its road and telegraph wires with the Union Pacific Railroad and telegraph, at or near Cheyenne; with the Union Pacific Railway, Eastern Division, at Denver; and shall have a uniform gauge, rate of freight and fare, and charge for hauling of cars, and the privileges and immunities, except subsidy in bonds, and be subject to the obligations of the Union Pacific Railroad Company, and its branches, and, to aid in its construction, shall have like grants of land and rights of way, with like conditions and privileges; provided, that patents may be issued to said company whenever it shall have completed twenty consecutive miles of its roads and telegraph lines, instead of forty miles, and now provided by law, whenever said company shall file with the Department of the Interior a certificate of the Governor or Surveyor General of Colorado, whether a territory or a State, duly sworn to by them before the Judge of the Supreme Court of Record in Colorado, that twenty consecutive miles of railroad and telegraph of the said company have been fully completed in a good and substantial manner, as contemplated by this act; and upon the connection of the Union Pacific Railroad and Telegraph of the Eastern Division with said railroad and telegraph at Denver City, said company shall be entitled to the same rights and privileges as if the whole line had been constructed by said Eastern Division Company. The line from Denver to Cheyenne shall be taken in lieu of its construction of said portion of a route; and all the provisions contained in the several acts of Congress relating to the operation of the Union Pacific Railroad and telegraph, the Central Pacific, of California, and the branches of said Union Pacific Railroad and telegraph, so far as the Government, the public and said railroad and branches are concerned, shall apply to the operation of said Denver and Pacific Railway and telegraph, the same as if they were here repeated, the design being to provide that the said road shall, for the purpose of through business, be operated without change of cars or breaking bulk.

"Sec. 2. That the Union Pacific Railroad Company, Eastern Division, may mortgage

that part of its road between the point where its subsidy in bonds shall terminate and Denver City, together with its rolling stock, to an amount not exceeding \$32,000 per mile; which point shall be held and construed under existing laws, to be at or near Cheyenne Wells, in Colorado, and not farther west than the meridian of said Wells. And the Denver Pacific Railway and Telegraph Company may mortgage its road and rolling stock to a like amount, for the purpose of enabling said companies to borrow money to construct their said roads. That this act shall not take effect and go into operation until the said Union Pacific Railway Company, Eastern Division, shall, by a vote of its directors, have given its consent to the same and have filed a certificate to that effect under the corporate seal of said company, attested by its President and Secretary, in the Department of the Interior, and the grants herein made to the said Denver Pacific Railway and Telegraph Company are made upon condition that the said company shall complete and put in operation its whole line of railroad and telegraph by the first day of January, 1867."

The Snow Blockade on the Pacific Railroad.

We gather from Cheyenne papers, says the *Colorado Tribune* of the 11th, some interesting particulars of the late snow blockade, east and west.

At the east, the *Argus* says that the utmost exertions were made by the company to enable the train to get through. Three powerful locomotives, with tenders, endeavored to force their way through the first cut below the engine house, which is but a small one. To a mere looker-on it seemed like an easy job, there being only about two feet of snow on the track. The combined powers started off at full speed, as if determined to do or burst. Dash they went into the cut, but had made only a little headway when the fourteen big wheels were seen turning around on the track in helpless impotency. Now, like a good general, old Boreas brought up his reserves, and gathering up his light guards and flying artillery, soon cut off their retreat. Finding it a question of "masterly inactivity," the engineers reversed the power at their command, and in a few hours fought their way back on the open track, and defeated the blustering general by their counter movement.

The *Leader* says that west of Cheyenne the storm was probably more severe than to the eastward. The train from Bryan, which was due at Cheyenne at nine o'clock on Saturday morning, only arriving at Laramie at noon, from where, remaining only long enough for dinner, it at once started for Cheyenne. Slowly and laboriously, through deepening, drifting snows, the train made its way up the mountain to Dale Creek bridge, and there, at what is nearly the highest point on the road from Omaha to Sacramento, stuck fast. Finding it impossible to draw the train, the locomotive and tender were uncoupled, and sent forward to Sherman for assistance. Being unable to see any chance of getting the train over the summit, an order was sent to Laramie for more power, which came up to the bridge and hauled the train back to Laramie, where it arrived on Saturday night.

Leaving the passenger train at Laramie, a train of three ten-wheeled locomotives, to the lead of which was attached one of the immense snow-plows constructed expressly for this road, and about one hundred and fifty men with shovels, started under the command

of Assistant Superintendent I. W. Campbell, to clear the track across the mountain. This train left Laramie yesterday morning, arrived at Sherman, the summit, at noon, and at once started for this city, where it arrived at two o'clock this morning. The effect of the huge plow, driven at the rate of forty or forty-five miles an hour, into an almost mountain of snow, by these three engines, each weighing twenty-six tons, is described as terrific.

The snow would be thrown to a distance of forty feet on either side of the track, while a track would be made through drifts, leaving banks higher than the train which was then driven through. When, after plowing a considerable distance, the snow became so packed as to resist the efforts of this ram of triple strength, the men went to work with shovels, and soon cleared the way for another start. The men, on arriving at Sherman, were so exhausted with their extraordinary labors and exposure that they could scarcely be induced to make any further efforts, but by dint of perseverance and encouraging words, as well as by his own example, Mr. Campbell succeeded in persuading them to continue the work, until the elements themselves were subdued and a road opened across the point of greatest altitude to be encountered between ocean and ocean.

The Atlantic and Great Western Railway Company.

This company is now endeavoring to regain possession of its property, which, since April, 1867, has been in the hands of a Receiver, and operated by him for the benefit of the bondholders. Application has been made to the courts of New York, Pennsylvania and Ohio, in which State the property is situated, and decrees have been obtained authorizing the restoration of the property on payment of all debts incurred by the Receiver, provided the bondholders consent. This seems an important proviso, but it is said that the bondholders, represented by their attorney, Clarkson B. Potter, Esq., are satisfied that the road is now in condition to earn sufficient to pay their claims regularly, and it is thought that a satisfactory adjustment of the debts incurred by the Receiver can be made. On this subject the *Meadville Republican* says:

"The exact amount of the debts that must be paid or adjusted in compliance with the decree we are unable to state, but they are quite large. Most of the bondholders have agreed upon a plan to fund the interest debt by an issue of fourth mortgage bonds. It is stated that the company are confident of being able to comply with the provisions of the decree within the time specified, or possibly by the 1st of January. Of course this depends upon their success in funding the interest debt and raising money to liquidate the debts incurred by the Receiver."

The condition of the road has been very greatly improved since it has been under the control of the Receiver, Gen. R. B. Potter, and it has been well supplied with rolling stock and repair shops, so that the intrinsic value of the property is much greater than when it came into the hands of the bondholders. Its broad gauge prevents its having numerous or extensive connections, but it still furnishes a through line from Cincinnati to New York, and the local traffic on its line is large and should become enormous. If Mr. McHenry is enabled to carry out his policy,

it will doubtless have as large a traffic as was ever known on an American road, though it is questionable whether it would be a profitable traffic. He proposes, it will be remembered, to reduce the tariffs to a fraction of the present figures, and to run such a number of trains that the track will be almost constantly occupied. To insure through connections he would lay a third rail, and, if the Erie Railway should be prepared to co-operate, receive through trains from Chicago, St. Louis and Cincinnati to New York and Philadelphia.

Whatever may be the fate of the stock and bondholders, it is fortunate for the community that the road is again in good working condition, and it will be still more fortunate if the future managers are able to maintain it in that condition, and earn such dividends as to encourage the company to improve it further.

Since writing the above it has been reported that the Erie Railway Company has leased the Atlantic and Great Western for nineteen years, at a rental of \$1,800,000 yearly, or 30 per cent of the gross earnings. If this proposition falls below \$1,800,000, the Erie Company is to keep the property in repair and give the Atlantic and Great Western Company the option of renewing the lease.

If this lease has been made, of course the prosperity of the road will depend upon the fortunes of Erie, of which no man dare prophesy.

Railroad Connections South of Kalamazoo.

The readers of the *Gazette* will recollect that some weeks since, we noticed the proposed through route from Grand Rapids via Allegan, Kalamazoo and White Pigeon, in Michigan, and Goshen, Warsaw, Peru, Indianapolis, in Indiana, and thence to Louisville, Kentucky. This project is still in a favorable state of preliminary arrangement, and the prospects are very favorable for its early construction. We understand there is to be a meeting at Goshen, Ind., on the 22d inst., on the subject.

The cars are now running from White Pigeon to Allegan, a distance of 62 miles on this through route. The Michigan parties interested in it are devoting nearly all their time and energies to getting the road in running condition from Allegan to Grand Rapids, as the best mode of securing this great through route.

A great part of the work is done between Allegan and Grand Rapids, the iron is purchased and in process of delivery, and the Iron Bridge, over Grand River, is under construction in Cleveland, O.

By looking at the map the reader will see that this line from here to Warsaw, is very direct towards Cincinnati; and he will also notice a Cincinnati railroad running from that city to Hagerstown, Ind., directly towards Kalamazoo.

Leaving a gap from Hagerstown to Warsaw to be filled up, to make this a Southern through route to Cincinnati, as well as a Louisville route.

By the *Marion, Ind., Chronicle* we notice that a movement is on foot to extend that Cincinnati road still farther in this direction. A meeting was recently held at Wabash, of which H. Caldwell was Chairman, and A. P. Fery, Secretary, when it was resolved to hold meetings all along the route from Hagerstown to Elkhart. Judging from the character of the gentlemen taking part in the proceedings of the meeting, we should say the prospects of success are favorable.

In case the route from Grand Rapids *via* Warsaw shall succeed as it now bids fair to do, this extension of the Cincinnati road need not extend this side of Warsaw; from that point direct connections will be made to the pineries, gypsum, fisheries and all other important interests of Western Michigan. The road from Grand Rapids South will probably be constructed and running to Warsaw before the Cincinnati Road can possibly reach that point—and that will give ample northern connections to the Cincinnati route.

LATER.—We see by the *Warsaw Union*, that there is to be a meeting on this subject held at Warsaw, on the 16th inst. We hope they will take such measures as will promote the construction of the road from White Pigeon to Peru, and also the road from Warsaw to Hagerstown. That would harmonize all interests.

Internal Revenue

EXTRACTS FROM THE REPORT OF THE COMMISSIONER.

The largest receipts of internal revenue were during the fiscal year 1866, when taxation had reached its highest limits. The estimates of the reductions since that period made from time to time, with reference to proposed legislation, were:

	Annually.
By statute of July 13, 1866.....	\$65,000,000
By statute of March 2, 1867.....	40,000,000
By statute of February 3, 1868....	23,000,000
By statute of March 31, 1868....	45,000,000
By statute of July 20, 1868.....	
Total.....	\$173,000,000

The two statutes last named swept away the tax upon the manufactures, mineral oils and petroleum, and the estimate is without reference to the reduction of rates upon distilled spirits.

The receipts for the last fiscal year were from the statutes existing July 1, 1867, modified by the act of March 31, 1868.

The statute of February relates to cotton, and relieved only that grown after the year 1867.

The aggregate receipts from internal revenue, exclusive of the direct tax upon lands and the duty upon the circulation and deposits of national banks, were for the year:

1866.....	\$310,906,984
1867.....	265,920,475
1868.....	191,180,564

These amounts include drawback upon goods exported and sums refunded as erroneously assessed and collected.

The amounts of drawback and sums refunded were as follows:

	Drawback.	Am'ts refunded.
1866.....	\$ 798,867	\$ 514,844
1867.....	1,864,632	706,582
1868.....	1,379,980	1,018,335

The increase of drawback in 1867 was due to the increased exportation of cotton goods and of spirits of turpentine, and the presentation of claims for taxes upon articles exported prior to June 30, 1864, which presentation was stimulated by the statute of limitations barring their payment unless presented before October, 1866. During the last year this large exportation continued; and claims were multiplied by a new statute of limitations. Since October 1, 1868, no drawback has been

allowed except upon goods manufactured exclusively on tax paid cotton, upon beer, and proprietary articles to which stamps had been attached. About \$300,000 of amounts refunded in 1867 and 1868, arose from the refunding to wholesale dealers, under direction of the act of July, 1866, so much of their license tax as was due to the excess of their estimated over their actual sales. In many districts, railroads were taxed upon their gross receipts from freight long after the repeal of the law imposing such tax, and the amount has been refunded, as has been also the sum of \$52,855 42, illegally assessed, in the opinion of the Attorney General, upon cotton grown on the Indian reservations.

RECEIPTS FROM BANKS, TRUST COMPANIES, AND SAVINGS INSTITUTIONS.

	1866.	1867.	1868.
Dividends and additions to surplus....	\$4,186,024	\$3,774,975	\$3,624,775
Circulation.....	990,328	208,276	26,902
Deposits.....	2,099,636	1,355,396	1,438,513
Capital.....	374,074	476,868	399,563

The reduction of receipts reported from capital and circulation is due to the conversion of State banks into national associations, and that from deposits is due to the same cause and to the relief by the act of July, 1866, to all sums of less than \$500 deposited in the name of any one person in savings institutions having no capital stock.

RAILROADS.

	1866.	1867.	1868.
Dividends & profits, \$2,205,804 }	\$3,379,262	\$2,630,174	\$1,259,156
Int. bonds 1,255,917 }			
Gr. rec'pts 7,614,448 }			
	4,128,255	3,134,337	

The collectors' monthly abstracts for 1867 did not give the receipts from interest upon bonds, separate from those upon dividends and profits. During the fiscal year 1866, and two months of 1867, the tax collected was from assessments upon the gross receipts for the transportation of property as well as of persons.

INSURANCE COMPANIES.

	1866.	1867.	1868.
Dividends and additions to surplus.....	\$767,231	\$563,474	\$605,490
Premiums and assessments 1,169,722	1,326,014	1,288,746	

Dividends of insurance companies, railroads and banks have been taxed five per cent. during the three years, while tax upon premiums and assessments has been one and a half per cent.

GROSS RECEIPTS OF TELEGRAPH COMPANIES.

1866.....	\$308,437
1867.....	239,595
1868.....	214,699

The receipts of the fiscal year 1866 were from the tax of five per cent., as were those of the two months of 1867. After that time the rate was three per cent.

GROSS RECEIPTS OF EXPRESS COMPANIES.

1866.....	\$645,769
1867.....	558,359
1868.....	671,950

The rate during the three years remained unchanged from three per cent.

REVENUE STAMPS.

1866.....	\$15,044,373
1867.....	16,094,718
1868.....	14,852,252

LEGACIES AND SUCCESSIONS.

1866.....	\$1,263,766
1867.....	1,861,429
1868.....	2,813,752

INCOME.

1866.....	\$60,894,136
1867.....	57,040,641
1868.....	33,027,611

The amount collected in the fiscal year 1866, and four-fifths of that collected in 1867, were assessed at the highest war rates, and the increase of exemption appeared for the first time in the returns for 1868. The assessments on the incomes for the calendar year cannot all be collected in the same fiscal year, although great progress toward this end was made with the last annual list. The total amount thus far reported from the tax on incomes of the calendar year 1866, is \$27,417,956 65, and from that of 1867 \$22,236,381 79; of the former amount \$9,773,858 were collected in the fiscal year 1867, and \$17,644,098 in 1868. Of the tax on incomes of 1867 \$14,389,781 were collected in the fiscal year 1868, and but \$7,846,600 in 1869. There remain several districts from which full returns have not been received, and it is believed that the amount actually collected upon the incomes of 1867 exceeds \$23,000,000. The number of persons assessed for an income tax on the annual list of 1866, before the increased exemption, was 460,170. In 1867 the number was 259,385, and in 1868 in 222 districts, from which reports have been received, the number was 232,775. In the 18 missing districts the number in 1867 was 20,948.

ARTICLES IN SCHEDULE A.

1866.....	\$1,692,792
1867.....	2,116,957
1868.....	1,134,106

The change from May to March, in 1867, of the time for making the annual assessment of articles in schedule A, as in the case of income and special taxes, makes the collections of the fiscal year 1867 disproportionate to those of 1866 or 1868. The total receipts from the annual list of 1867 was \$939,654 71, and the amount thus far reported from the list of 1868 is \$804,437 92.

SPECIAL TAXES.

1866.....	\$18,015,743
1867.....	18,103,616
1868.....	15,966,313

The reduction in the receipts of the last fiscal year is only apparent, and arises from the change of the tax upon wholesale dealers from an annual one collected at the beginning of the year, to a monthly tax upon sales. The collections of special taxes, like those for income and articles named in schedule A, cannot all be made in the fiscal year of their assessment. The receipts from the assessment of 1867 were \$14,136,459 18; those already reported from the assessment of 1868 are \$10,779,599 08, which amount will be considerably increased when the collectors' abstracts are all received.

Under the law existing prior to that of July, 1866, brewers paid an annual tax of \$25, and when their product was more than 500 barrels per year \$25 additional. By the act of July, 1866, this tax was doubled, as was that upon distillers of spirituous liquors. The act of July, 1868, will very largely increase the receipts from rectifiers and distillers.

COTTON.

1866	\$18,409,655
1867	23,669,079
1868	25,500,948

During the fiscal year 1866 the tax was two cents per pound. From August 1, 1866, until September 1, 1867, it was three cents, and after that date two and a half cents per pound. As the removal of cotton from the districts of its growth is limited during the months of July and August, and the tax for ten months of the last fiscal year was at the reduced rate, it is evident that the amount brought to charge during that year was greater than in any year preceding, and considerably in excess of two millions of bales.

CIGARS, CIGARETTES AND CHEROOTS.

1866	\$3,476,237
1867	3,661,984
1868	2,951,675

Since the act of 1862 the rate upon cigars has been frequently changed; but as their number has always been an element in determining the amount of tax it has been practicable every year to compute from the returns of the local officers the number of cigars upon which the tax has been collected.

From these it appears that the number in the fiscal years

1863 was	199,288,284
1864 was	492,780,700
1865 was	693,230,989
1866 was	347,443,894
1867 was	483,806,456
1868 was	590,335,052

During the fiscal year 1866 the tax upon cigars was \$10 per thousand. From August 1, 1866, to March, 1867, the rate was partly specific and in part ad valorem. After the last named date the tax was uniform, and at \$5 per thousand.

CHEWING AND SMOKING TOBACCO.

1866	\$12,339,922
1867	15,245,478
1868	14,947,108

The product brought to charge in 1866 was 35,748,351 pounds; in 1867, 45,535,581 pounds; in 1868, 44,900,880 pounds. The reduction of the consumption of tobacco during the past year is compensated by its increased use in the manufacture of cigars, consequent upon their reduced taxation. The amount stored in bonded warehouse on the 1st day of July, 1866, was 4,123,631 pounds; 1867, 7,625,001 pounds; 1868, 8,202,253 pounds. The amount exported in bond during 1867 was 11,075,568 pounds; 1868, 11,952,670 pounds.

FERMENTED LIQUORS.

1866	\$5,115,140
1867	5,819,346
1868	5,685,664

The tax at \$1 per barrel has been uniform during the year.

DISTILLED SPIRITS AND BRANDY.

	Distilled spirits.	Brandy.
1866	\$29,198,578	\$283,500
1867	28,296,264	868,145
1868	13,419,093	871,638

The falling off of receipts in 1868 resulted in some degree from the general expectation that the tax would be reduced, and the consequent unwillingness to withdraw spirits from bond at a higher rate, but mainly from the frauds which made such reduction indispensable necessary. The above figures do not include the receipts from forfeitures.

The amount of spirits in bonded warehouse July 1, 1866, was 6,082,551 gallons; in 1867, 17,587,272 gallons; in 1868, 27,278,420 gallons. The quantity out of warehouse under transportation bonds at the beginning of the fiscal year 1867 and of 1868 was at each date considerably in excess of 3,000,000 gallons. There was none at the commencement of 1869. The quantity exported in bond in 1867 was 4,654,816 gallons, and in 1868, 4,128,188 gallons. The number of gallons removed to "class 2 warehouses" in 1867, for the manufacture of cosmetics, medicines, cordials, &c., for exportation, was 892,727; while in 1868, allowed by law during only a portion of the time, it was 93,213 gallons.

EXPENSES FOR COLLECTING THE REVENUE.

For the year 1866	\$7,689,700
For the year 1867	8,982,686
For the year 1868	9,327,302

The increased cost for assessing for 1867 over that for 1866 arose from the increased number of collection districts in the South, and the employment of a larger number of officers. The excess of 1868 above the expenses of 1867 was occasioned mainly by the increase of the pay of assistant assessors from \$4 to \$5 per day. The number of assistant assessors in commission on the 1st day of November, 1867, was 3,180. This number, with the sources of revenue diminished by the act of March last, has been largely reduced, and on the first day of the present month but 2,284 were in service.

The receipts of internal revenue for the fiscal years 1866, 1867 and 1868, respectively, and the ratio thereto of the expenses during the same periods, were as follows:

Years.	Gr. collections.	Refunded.	Drawback.
1866	\$310,906,984	\$514,844	\$798,867
1867	265,920,475	706,582	1,864,632
1868	191,180,564	1,018,335	1,379,980

	Net	Per ct. gross	Per ct. net
Years.	collections.	Expenses.	tions.
1866	\$309,593,273	\$7,689,700	\$2 47
1867	263,349,261	8,982,686	3 38
1868	188,782,249	9,327,302	4 88

The ratio of costs to collections has increased, of course, with the reduction of the latter. It has required the same machinery and the same number of officers to collect taxes at two or three per centum as at five per centum, and until the passage of the statutes of the present calendar year it was necessary to keep the officers substantially to their maximum number.

PROBABLE RECEIPTS FOR THE PRESENT FISCAL YEAR

It has always been difficult to make any accurate estimate of the receipts for the future from internal taxation. The frequent modifications of the laws themselves, the varying condition of different manufacturing interests, the shifting values consequent upon paper currency, together with other disturbing elements, have materially affected the worth of data collected at this office, from which otherwise the receipts for any fiscal year could be foreshadowed with considerable accuracy. The reduction of the sources of revenue has now, however, somewhat diminished these embarrassments, and the collections for the current year can be calculated with reasonable certainty.

The following tabular statement presents

the aggregate of certificates of deposits by collectors received at this office during July, August, September and October, for the fiscal year 1867, 1868 and 1869, respectively:

	1867	1868.	1869.
July	\$27,079,103	\$24,734,656	\$16,989,650
August	18,043,341	17,848,051	13,900,380
Sept.	33,714,719	13,183,607	9,760,790
October, ..	26,414,430	14,486,636	10,092,030

Of the amount collected in 1867 there was from income \$13,463,655 45; in 1868, \$17,733,714 04; and in 1869, \$8,365,817 68.

I herewith present also the collections from the several sources of revenue during the first quarter of the present fiscal year in comparison with those of like character during the corresponding period of the fiscal year 1868.

The monthly abstract of the Collector of the First District of North Carolina for August, 1868, and of the Collector of the Third District of Louisiana for September, have not been received, and the collections in their districts for the months stated are not included in the receipts for 1869:

(—July, August and September.—)

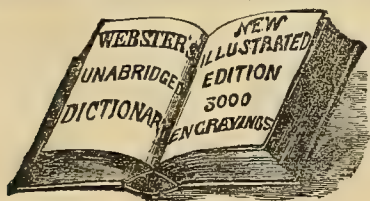
	1868.	1869.
Spirits	\$5,293,921	\$8,465,443
Tobacco	5,029,806	4,295,674
Fermented liquors, ..	1,716,493	1,790,602
Gross receipts	1,576,214	1,514,756
Sales	921,203	1,739,513
Income	16,870,862	10,973,119
Banks and bankers, special tax, and tax on capital, circulation and deposits...	1,090,661	886,078
Other special taxes, ..	4,053,222	2,969,427
Legacies	320,278	278,590
Successions	230,730	254,066
Article, schedule A, ..	497,900	300,843
Passports	11,695	8,665
Gas	218,078	341,128
Sources not otherwise herein specially enumerated, including cotton and manufactured articles	11,866,928	874,431
Penalties, &c.	230,151	306,402
Stamps, other than those for spirits, tobacco and fermented liquors	3,122,970	3,393,472
Salaries of United States officers and employes	220,851	228,690

Grand total.....\$53,397,963 \$38,620,899

The sum of \$5,359,492 80 was received in fiscal year 1869 from the tax of 50 cents per gallon upon spirits in bond July 20, and withdrawn therefrom after that date. The sum of \$662,136 34 was either collected prior to the act of July 20, 1868, and at the rate of \$2 per gallon, or from spirits distilled after that date and removed from warehouse at 50 cents per gallon. Of the spirits in bond at the passage of the act of July last, 14,676,298 gallons were remaining on the 1st of November. This by the requirements of law must all be withdrawn on or before the 20th day of April next, and with the tax of 50 cents per gallon and \$4 per barrel of forty proof gallons will yield a revenue of \$8,805,779.

From a careful consideration of the above, and of other data which the proper limits of my report will not allow me to present, I confidently believe that the receipts for the present fiscal year will reach the sum of \$145,000,000.

BEEF PACKERIES IN TEXAS.—The Galveston *News* has the following on this subject: "We believe there can not be less than thirty or forty such establishments in different parts of our State. We have one now in operation some three miles to the westward of this city, on the railroad, where, we understand, forty or fifty head of cattle are slaughtered daily. We believe scarcely any two of all the beef packeries in the State are pursuing the same process for curing and packing beef, and yet our present information is so unsatisfactory that we are unable to say whether any of them have yet proved entirely successful. We, however, have great confidence that complete success will ultimately be achieved by some of them, and when once by any process the fine beef of this State can be packed and shipped in good condition to foreign markets, we have no hesitation in saying that the beef of the State will continue one of our principal sources of wealth and revenue. This will readily appear from a few facts and figures. The number of cattle in Texas is estimated at five millions, and the annual increase is probably not less than twenty or twenty-five per cent, which would be at least one million. If we suppose that one-half of this number will be fit for beef annually, they will make about 1,500,000 barrels, which, at twenty dollars per barrel, (a low price, we believe, in the foreign market) will amount to thirty millions of dollars, or about double the present value of cotton shipped from this port. But, admitting that we can not expect to realize any such results, yet even if the figures are only approximately true, they show beyond a doubt that this State will have an immense addition made to its annual wealth the moment any process of beef packing shall prove entirely successful."



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3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 256	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

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Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	4,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

THE NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

GIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scriptive, unequalled by any Railroad on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at north-east corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15 foot of Liberty street, North River, at 7:00 and
9:00 a.m. and 18:00 p.m. On Sundays, one Express Train
at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change;
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front to Back by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 3:30 p.m. Without change of cars from
New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN from the West, leaving
Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.;
Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at
7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE from the West, leaving Pitts-
burg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Read-
ing at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at
1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN from Harrisburg, passing
Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at
1:35 p.m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL from the West, leaving Pitts-
burg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Read-
ing at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at
7:20 p.m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

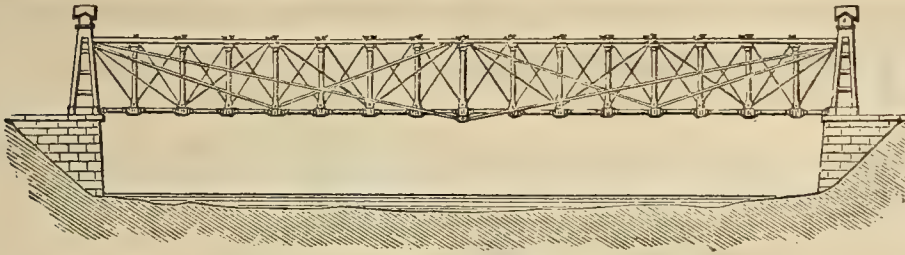
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House,
Spencer House and Gibson House offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the pri-
ncipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent

F. B. LOED Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN. MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and railroad work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and construction of all the details. Our long experience and opportunities of obtaining information enable us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
8 E Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,

No. 27 W. 3d St., Cincinnati

W. P. SHINN, General Freight Agent.

my 11

Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
310 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works.

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to extent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,
PHILADELPHIA,
NEW YORK, and
BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

*Fare to Washington City same as to
 Baltimore.*

L. WILSON, Master of Transportation.
 M. COLE, General Ticket Agent.
 O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
 Omnibuses call for passengers.

JANUARY 5th, 1868.

*Cincinnati to St. Louis Without
 Change of Cars.*

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 30 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
 J. W. CONLOGUE,
 General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
 —AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
 Keokuk, St. Joseph, Des Moines, Omaha
 And all Rail and River Towns and Cities in the West,
 North west and South-west.

5 THROUGH TRAINS DAILY,
 (Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7:00 am	10:50 pm
Indianapolis and Cairo Express.....	7:30 am	2:30 am
Carroand St. Louis Express.....	2:30 pm	4:08 pm
Springfield, Quincy and St. Joseph Express.....	2:20 pm	4:08 pm
Chicago Lightning Express.....	7:15 pm	11:30 am
St. Louis Lightning Express, Sunday instead of Saturday night.....	8:50 pm	6:15 am
No change of cars between Cincinnati, St. Louis and Chicago.		
Elegant Sleeping Cars on all night trains.		
ACCOMMODATION TRAINS.		
Lawrenceburg Accommodation.....	10:10 am	8:35 am
Cornersville and Cambridge City.....	4:00 pm	9:15 am
Lawrenceburg.....	4:45 pm	2:20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl Streets. The splendid Passenger Depot of the I. & O. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

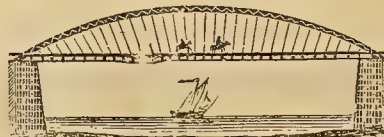
J. F. RICHARDSON, Superintendent.
 F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH**BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND ready for shipment, with instructions for applying them.

MOSELEY & CO.
 Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,*Locomotive and Railroad***CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 8

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continues to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
 WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1 1/4 to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from 1/2 inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1 1/2 to 24 inches in diameter, and branches for same, &c.,
Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
 THOS. T. TASKER, JR., S. P. M. TASKER
 HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore
RAILROAD!

**FOUR PASSENGER TRAINS DAILY****TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY**

4.15 (Express Monday excepted); 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
 Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.9 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

E. D. MANSFIELD,
T. WRIGHTSON, } Editors

THURSDAY, DECEMBER 24, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING.

OFFICE-No. 167 Walnut Street.

SUBSCRIPTIONS—\$2 Per Annum, in Advance.

ADVERTISEMENT.		
A square,	the space occupied by ten lines of Nonpareil.	
One square,	single insertion.....	\$ 1 00
" "	per month.....	3 "00
" "	six months.....	12 "00
" "	per annum.....	20 "00
Column,	single insertion.....	5 "00
" "	per month.....	10 "00
" "	six months.....	40 "00
" "	per annum.....	80 "00
Page,	single insertion.....	75 "00
" "	per month.....	25 "00
" "	six months.....	110 "00
" "	per annum.....	200 "00

WRIGHTSON & CO.,
Proprietors.

ATLANTIC AND GREAT WESTERN RAILWAY

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:06 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depoten Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail. 7:30 A. M. 5:00 P. M.

Baltimore and Washington City	7:30 A. M.	5:00 P. M.
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON

Dayton, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Dayton, Detroit and Canada.....	6:30 P. M.	1:40 A. M.
Dayton, Detroit and Chicago Mail.....	7:15 A. M.	1:50 P. M.
Dayton, Detroit and Chicago, Exp.....	5:10 P. M.	1:50 A. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND

Day Express 7:20 A. M. 7:05 P. M.
Night Express .. 5:45 P. M. 10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

CINCINNATI AND INDIANAPOLIS JUNCTION		
Indianapolis, Bushville and Connersville Mail.....	7:00 A. M.	10:45 A. M.
St. Louis Express	2:30 P. M.	5:10 P. M.
New Castle and Cambridge City,	7:00 A. M.	10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

DIANAPOLIS, CINCINNATI AND LAFAYETTE

Indianapolis, Cincinnati and Lafayette.		
Chicago and St. Louis Express...	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	9:00 P. M.

OHIO AND MISSISSIPPI

St. Louis, Cairo & Louisville...	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.	5:45 P. M.	6:10 A. M.
Louisville Special Train...	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE

Mail.....	7:00 A. M.	4:10 P. M.
Boat Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.	8:00 P. M.	10:35 A. M.

HOW AND HOW MUCH?

At the present moment there is a very justifiable indignation expressed by the Public Press, and which pervades the deep recesses of the minds of the People against the subsidies granted for the construction of railroads to the Pacific. This indignation is justifiable, because the management has been a flaunting abuse of the liberality of a generous People. Let us see what is the status of our present investments.

The Secretary of the Interior in his report furnishes us the information on this subject. The following is the amount of bonds issued to Pacific Railroad Companies :

Union Pacific, 820 miles.....	\$20,238,000
Central Pacific of California, 390 miles.....	14,764,000
Union Pacific, Eastern Division, 393 9425 10000 miles.....	6,303,000
Sioux City and Pacific, 69½ miles..	1,112,000
Western Pacific, 20 miles.....	320,000
Atchison and Pike's Peak } 100	640,000
Cent. Br'h, Union Pacific } miles	960,000

1,798½ miles nearly.....	\$44,337,000
--------------------------	--------------

The Secretary furnishes us with his estimate of the *Profit and Loss* account of the parties constructing the Union Pacific Road, and from which it is easy to discover the real cause of alarm. The Report says:

Should the road, as is expected by the company, form a junction with that of the California company, near the northern extreme of Great Salt Lake, a little west of Monument Point, its length would be about 1,110 miles. The cost of locating, constructing, and completely equipping it and the telegraph line is \$38,824,821, an average per mile of \$34,977 32.

The Government subsidy in bonds for that distance at par amounts to \$29,504,000, an average per mile of \$26 580. The company's first mortgage bonds are estimated at 92 per cent.; and would yield \$27,143,680. The fund realized by the company from these two sources amounts to \$56,647,680, being an average per mile of \$51,034, exceeding by \$16,056 68 the actual cost of constructing and fully equipping the road, and yielding a profit of more than \$17,750,000.

Comment is scarcely necessary. From the above it is apparent that the total average cost per mile of the Union Pacific road is \$34,977 32, while the total average income from the 1st and 2d mortgage bonds is as stated by the Secretary \$51,034, with a net profit to the constructors of the work of cash resources of \$16,056 68 per mile. What renders this the more alarming is the fact

that they have availed themselves of the full extent of their credit under both liens. Had the managers of the road intended to deal honestly with the people, under the more than Princely grant, they would have used the full extent of the Government subsidy in construction, and only so much as was absolutely necessary of the 1st mortgage, which according to the Secretary's report would have been \$16,056 68 per mile less than it now is. This would have materially added to the security of the Government's 2d mortgage, as well as improving the character of the 1st lien. It should be remembered that this is entirely outside of the magnificent *land grants* that will in the future constitute no mean portion of the assets of the company, and will eventually yield almost enough to cancel the *entire cost* of the work. The great question now is,—

HOW TO RECTIFY PAST ERRORS AND OBTAIN SECURITY FOR THE FUTURE.

In the first place it will be claimed that the Government subsidy is a *contract*, and hence can not be changed. Let us look at this a moment. Has not the company *violated this contract in not making a first-class road*, and instead of putting thirty-three per cent. of credits in the pockets of constructig ring, *expending the entire amount of the proceeds of Government and first mortgage bonds on the road*? If one party *violates a contract*, surely there is no bar to the other party requiring a *specific performance of the contract in both letter and spirit*. No one will contend that Congress ever intended to give the *constructors*, nor even the *stockholders* of the Union Pacific Railroad \$16,056 68 per mile more than was necessary for its construction, and which would be an irresistible source of temptation, like the tiger's first taste of blood to *swindle the Government out of the entire subsidy*! While there is yet a large portion of the road unfinished, and the *patents have not yet been issued for the lands*, Congress has the right, and is in duty bound, to see to it, that the People's money is secured. In the first place, this can be obtained either by requiring the Company to double track a large portion of the route, or by stipulating for a reduced amount of first mortgage on the unconstructed portion of the road. 2. The proceeds of the lands granted to the company should be secured to the Government, by trustees, selected, either in part or wholly, by the Government. The lands to be graduated and sold in the same manner and at similar prices, as the corresponding Government lands, for either cash or land bonds, the whole to be applied in liquidation of the Government claim.

The railroad company can not, with any show of honest intentions for the future, object to this course, and if they do, the creditor (Congress, the servant of the people) have a right, notwithstanding the pleaded contract, to *make good* the security for their in-

vestment, so far as the means is in their hands to do it. If Congress shall *fail in this*, the people *will not fail* to hold them to a strict accountability of their stewardship. "Now is the time" and "now the hour"—another Congress and it will be too late. By so doing, nothing need be, nor will be, taken from the company—the contract need not be violated on the part of Congress, but simply enforced. It is equally to the interest of the holders of the first mortgage, and necessary for their protection, unless they want to purchase the road under their lien, that the Government should adopt stringent protective measures, to prevent loading the enterprise with a debt of \$16,056.68 per mile more than its whole original cost, which goes into the pockets of the constructing ring.

By a special dispatch to the *Cincinnati Chronicle*, dated December 23, we learn that "Gen. Grant in conversation yesterday with Hon. Oakes Ames, President of the Union Pacific Railroad, expressed in firm and decided tones his opposition to granting any more money subsidies to Pacific Railroads until the finances of the country are in much better condition than at the present time. While he favored building one or two railroads through to the Pacific Coast, he would not give his approval to any scheme which proposed to take money out of the Government Treasury in the shape of bonds, &c. He had indorsed the building of the Kansas Pacific Railroad as a military necessity, and believed it would save the Government a large amount of money: but by giving it his indorsement he had not intended to convey the idea that he was in favor of roads being built by the aid of money to be taken from the treasury.

"These roads should be built by private enterprise although in some cases land subsidies might be granted without detriment to the public interest. To be brief, General Grant expresses himself opposed to all new enterprises which tended to deplete the public treasury, and increase our already enormous public debt."

In another dispatch to the *Times*, dated the 24th, it is said that:—

"It is understood that General Grant was very indignant this morning at the publication of a garbled account of a conversation he recently had with Oakes Ames, in which Grant is represented as opposing the government subsidy to the Kansas Branch of the Union Pacific Railroad. The article in question was gotten up in the interest of the rings here."

Gen. Grant is an honest man, and as the man said of his mule, "he don't know anything else." It should be remembered that Oakes Ames made a contract about a year ago with the Union Pacific Railroad, amounting to FIFTY MILLION DOLLARS; that the Secretary of the Interior has shown that the Company, or somebody, has got \$16,056.68 per mile more than the road has cost; and that this same company are asking for extensive additional aid for the construction of Branch roads to Portland, Oregon, and elsewhere. Is there then any wonder that Gen. Grant should

say, when asked to give his opinion by such a prominent operator "that at present all schemes to secure government aid, except when it is absolutely necessary, should be steadily frowned down," as given in a telegram to the *Cincinnati Gazette*, especially when the inquiry is made by parties who have their "arms in the Treasury up to their elbows."

All honor to the firm, honest course of Gen. Grant. But, would not the General be in favor of the development of the resources of our country, and thus increasing the basis of taxation, and the prospects of liquidating the public debt, if the investment of the People's funds are made secure and remunerative? To this, we deem the proverbial good sense of Gen. Grant a sufficient answer.

Can the Government afford to aid in their construction?

HOW AND HOW MUCH?

We cannot better answer the above than to quote what we have said before, and which forms the sequel to the entire objections now raised to Government aid in the construction of trans-continental railways. In our issue of Dec. 17th, we said:—

Now, in reference to the advance of money by the Government, we say, at once, that nobody asks the Government to *give* money, which is the idea of the objections. The Roads do ask for a Government Grant of *lands*, which hardly any one objects to; but, what the roads want, and what the Government can do, without one dollar of loss, in any event, is just what any capitalist would do on any common railroad. It is simply to give the Government Bonds on a *First Mortgage* on the whole road. This is so reasonable, that we do not see how any one can reasonably object to it.

We give the propositions in the very briefest terms:

1. The Government to advance its aid to the extent of \$25,000 per mile, on the First Mortgage Bonds; the mortgage to cover the roads, machinery, and needed Railroad Lands.
2. The Companies to issue Land Bonds, secured by their lands; the lands to be sold for the Bonds only.
3. The Lands to be classified, at low prices, so as to prevent a monopoly at high prices.
4. The Government to *retain the right* to fix reasonable rates of tariff; and running arrangements with Branch Roads.

It will be seen, that these cover the whole ground of objections, heretofore made (and not without reason,) to the advance of Government aid. *First*, the Government gives nothing; for after the experience of the Union Pacific, no one can doubt that a *First Mortgage* on these roads is ample security; nor, is there any doubt of the ability of these roads to pay the interest. The objection of a monopoly of lands is also avoided; and another point will be secured of great value,

the power of other roads (acting as branches), to connect with the main trunk; and also the power of the Government to prevent an imposition on the public by extravagant rates of tariff. We can not see, in view of the immense and obvious need of these Pacific Roads, that any man can reasonably object to such a scheme of construction.

Eastern Railroads and the Cincinnati Southern Railroad.

We are told that some of the railroad Kings in New York City affect to have no regard for Cincinnati railroad connections. Mr. Vanderbilt don't want them and Mr. Jay Gould don't understand them. This is very likely, and we are not particularly concerned whether they understand them or not. The time will come when they will know more than they do now, and will regret their want of sagacity. There is one man in the East who does understand the matter, and who will probably have all the arrangements made before the New York men have come to their senses. This is the President of the Pennsylvania Railroad. Cincinnati has well earned the contempt with which New York treats her. She has been utterly negligent of her own interests. But, in spite of this, the Southern road will soon be made, and when it is, its magnitude and importance will flash light into the now blinded eyes of railroad magnates. In the meanwhile, we have been looking a little into the changes which are likely to be made by direct Southern connection with Cincinnati. To begin at a fair point, we state that there is now, with only indirect communication and costly freights, 150,000 bales of cotton per annum brought to Cincinnati, four-fifths of which is destined for Eastern manufactures. Now, let us suppose that there is a direct railroad from Cincinnati through Tennessee to the South. This road connects immediately with North Alabama and Northern Georgia. At the same time the Cincinnati and Louisville road, connecting directly with Memphis, is finished, (as it soon will be) and the bridge over the Ohio at Cincinnati is completed. What follows? Why, by far the best and most direct railroad line in the country to the Lower Mississippi Valley is through Cincinnati, connecting directly with the Pennsylvania road. Then the direct Southern road connects all the northern parts of the Southern States with Cincinnati, and they are drained off on the Pennsylvania line, unless, in the meantime, the Erie road (which is understood to have bought the Atlantic and Great Western) shall step in to aid the building of the Southern Railroad, and thus secure its connection. There is little time to lose, for it will take no great gift of prophesy to predict that if the New York roads don't seize the opportunity between this time and

next July, they have lost the trade of the Ohio Valley forever. Now, let us see a moment if we can make some tolerable estimate of what that trade, taken from a railroad point of view, is worth.

1. It is evident, at once, that with the two lines of railroads we have mentioned complete, all the cotton (not grown near the seaboard) in the South-west and the middle South, will go through Cincinnati; because, it is not only the shortest, but obviates the need of transshipment on the coast. Now, let us see what that is likely to be. For this purpose the census returns of 1860 will be far more reliable than any we can get now; for, it is very evident from this year's crop, that the cotton crop will, in a year or two, come up to its former magnitude. The region which will then send its cotton through Cincinnati, comprises all of Tennessee and Arkansas, and half of Mississippi, Alabama and Georgia. The amount produced in this region was—

Arkansas.....	367,393 bales
Tennessee	296,464 "
$\frac{1}{2}$ Alabama.....	495,000 "
$\frac{1}{2}$ Georgia	350,000 "
$\frac{1}{2}$ Mississippi.....	601,000 "

Aggregate.....2,109,857 "

Suppose that we have overrated Georgia and Mississippi, and that a portion of Arkansas cotton goes by Chicago, and that 200,000 bales are consumed in the West. After deducting all this, we shall find that 1,200,000 bales may be fairly counted on as going through Cincinnati to the East. This amounts to a carriage of 300,000 tons of freight in the single article of cotton. Now, let us look into some more items. Cincinnati is already the largest tobacco market in the United States. If the roads through the tobacco regions of the South are made, the facilities of this market for tobacco producers will be largely increased. Then we shall have of tobacco:

$\frac{1}{2}$ Alabama.....	116,000 lbs.
Arkansas.....	989,000 "
$\frac{1}{2}$ Kentucky.....	54,000,000 "
Mississippi.....	75,000 "
Georgia.....	900,000 "
$\frac{1}{2}$ Tennessee.....	33,000,000 "

Tobacco.....89,080,000 "

This is equal to 45,000 tons of freight. The carriage of wheat and corn from Kentucky and Tennessee is equal to 200,000 tons, but this is not a part to be counted on in an Eastern trade. But there is a weight of produce to come on the Southern roads to Cincinnati, destined for the Eastern markets, fully equal to 400,000 tons per annum. We say, then, without any fear of contradiction, that the New York railroad companies are greatly overlooking their own interests, if they purposely leave all the vast trade of the Southern interior to be monopolized by Philadelphia. But this is not all. The carriage of 400,000 tons of Southern produce carries with it, by the laws of trade, the sale of 400,

000 tons of goods, which the Southern people will take in payment, and it is not too much to say that the greater part of that, also, will go to Philadelphia.

We have presented this matter in the light of the plainest and simplest facts. We have no doubt that the Southern trade with the East, brought through Cincinnati by the roads we have alluded to, will be much greater than we have stated it. One of them, the road to Memphis, at Cincinnati crossing the Ohio, will soon be finished, and that road will connect with the Pennsylvania road. Now if the Southern road is made soon, (and, in our opinion, it will) who is it to connect with? The New York roads are evidently laboring under the delusion caused by turning their eyes only to the lakes. In time this delusion will be over, but when it is, it will be too late for the New York gentlemen to derive any profit from it. Perhaps we, in Cincinnati, shall lose nothing by that. The Southern road will be made by other interests, and New York Monopolists be set aside. It will be quite as well to fall into the hands of Philadelphia as New York. Unless the Erie interest in New York can sustain its conflict with the Central, all New York railroads will fall into the hands of one grand monopoly, and the result of that will be to give the advantage to the Philadelphia and Baltimore interests.

Southern Pacific R. R.

OFFICE SOUTHERN PACIFIC RAILROAD CO., }
MARSHALL, TEXAS, Dec. 3, 1868. }

T. Wright-on, Esq.:

This road has gone into new hands, who are able and responsible men, and determined to push it forward toward the Pacific early next spring. The road has been surveyed to approach the Pacific Ocean at San Diego; to run along the line of the 32° parallel of latitude; to cross the Rio Grande at El Paso; run along the Southern border of Arizona and cross the Colorado below the junction of that stream and the Gila.

Col R. B. Hale, of Louisville, is the President, and I am the Vice President of the new company. The company will soon apply to Congress for such aid and loan of the credit of the Government as was given to the Union Pacific. The advantages of this route over any other, are that the grades are very light, the distance 1,000 miles less, and never will the road be obstructed by snow. The Government can use it at all seasons. It also runs and will continue through a very rich and fertile country. In this State, fertile in lands and rich in beef, cattle, hogs, wheat, corn, cotton, iron and coal. In Arizona, rich in copper, gold, silver, &c., and the same in California. There are at present few better paying roads than this in the United States—its gross earnings being not less than \$600, and sometimes exceeding \$1,200 per day, while the running expenses will not reach \$200. Yours, truly, W. A. HAWSE.

Northern Michigan Railroad.

AN EARLY CONSTRUCTION OF THE ROAD DEMANDED.

A meeting of the citizens interested in the building of the Northern Michigan Railroad, from Detroit to Bay City, thence to Superior City through the central portion of the Upper Peninsula, connecting with the Northern Pacific road, was held last evening at the City Hall. A large number of prominent citizens were present. The meeting was called to order by Mayor Wheaton, and W. H. Craig, Esq., of the committee appointed at the last meeting, read the following report:

The committee appointed at a public meeting beg leave to report that they have had the subject intrusted to them under careful consideration, and feel constrained unanimously to concur in and indorse the enterprise, and would respectfully, but earnestly, recommend this important work to the favorable consideration of every property-owner, tax-payer, and well wisher of Detroit, among others, for the following reasons:

1. Because it will have a tendency to check or hinder the construction of some of the numerous railroads projected and under way of construction to flank Detroit and divert the trade and commerce that would otherwise seek our market.

2. Because it will tend to develop a portion of our State heretofore without railroad facilities, adding greatly to their wealth and productions, while it promises to Detroit a rich return in increased commercial transactions and material wealth.

3. Because it is the only direct railroad proposed or projected to connect Detroit with the valley of the Saginaw (the most productive and wealthy portion of the State) and promising us a bountiful reward by adding largely to our commerce and prosperity.

4. Because it is an important section in the great line of railways proposed, which will pass through the rich and productive counties of Macomb, Oakland, Lapeer, Tuscola and Bay, to Bay City and Wenona, thence through our extensive forests of pine and fine agricultural lands, which are yet undeveloped to the Straits of Mackinaw (the only feasible point to connect the upper with the lower peninsula.) Thence through the rich inexhaustible deposits of iron, copper and silver of the Lake Superior regions, and connecting directly with the Northern Pacific Railroad, which, in effect, would be a continuation of the same to our city; thus making Detroit an important point on the great highway across the continent.

5. Because it is an investment that will pay large dividends to the stockholders, as fully set forth in a full and able report made to your committee, by the able engineer of the Detroit and Howell Railroad, Wm. Scott, Esq., to whom your committee are under great obligations.

6. Because it will cost a large outlay to secure the right of way through our city, and procure necessary grounds for depots, etc.; which will be mutually beneficial to the city and the railroad, and which expense should be mutually borne by each.

In view of the foregoing considerations, we beg leave to submit the following resolution, and ask your favorable action on the same:

Resolved. By the citizens and tax-payers of the city of Detroit, that for the above purpose we will donate to the Northern Michigan Railroad Company a sum not less than one

per cent. of our assessed valuation, when a law for that purpose shall have been enacted, and that we will subscribe liberally to the stock of the said road, and hereby recommend it to the favorable consideration of our citizens, believing, as we do, that it will pay large dividends to the stockholders as well as largely increase our business prosperity and wealth.

Accompanying this report was a letter written to W. H. Craig, Esq., chairman of the committee, signed by E. R. Emmons, Marshall S. Hadley, John Hall, and twenty-eight others, a committee representing the towns of Rochester, Oakland, Orion, Oxford and adjoining towns in Oakland County. They represent that the three towns named are nearly in a direct line from Utica to Lapeer, and that their productions are not surpassed in amount or quality by any portion of the State. That a road through these towns will be nearly an air-line from Utica to Lapeer, thus shortening the distance between Detroit and Bay City fully four miles from the proposed line by way of Romeo to Lapeer, etc. The local patronage to a road through that territory, they say, would be largely in excess of any thing that could be attained by making the circuit *via* Romeo. They feel warranted in saying the local business offered to this road by the proposed line would be more than double that offered by the Romeo route, to say nothing of the advantages before referred to. Besides, the water power in that immediate locality is not surpassed in any part of the State, and invites manufactories.

The committee further say that there is raised annually for exportation in the towns through which that road would run, and those tributary thereto, 381,000 bushels of wheat, 235,000 bushels of other grains, 300,000 bushels of potatoes, 26,400 tons of hay, 350,000 pounds of wool, 945,000 pounds of pork, 475,000 pounds of butter, 48,000 pounds of cheese, and there is used annually in those towns 1,800 tons of plaster, and as much more lime.

To these estimates, they say, may be added the large amount of merchandise, coal, iron, agricultural implements, salt and building material generally. One of the results, they contend, of the construction of the road upon this route would be to open up a direct trade between the producers along the line of the road and Detroit City, thus doing away with the payment of an army of middle men, and which could not fail to add to the local sales and purchases of Detroit at least \$100,000 a year for each of the townships on and tributary to the road south of Lapeer.

They attach great importance to the construction of this road, to the end that the people whom they represent may avail themselves of the Detroit market, and for the purpose of expediting its early construction they offer to subscribe to the capital stock of the road a sum sufficient to grade, bridge, fence, and furnish the right of way and the ties for the road. There are responsible parties of acknowledged and known ability in each of the towns named, who will guarantee the subscription lists for the completion of the road bed ready for the iron, through the towns in which the road will pass on the proposed line. Parties interested in the road are now traveling over the line with a capable engineer, whose reports thus far are entirely satisfactory.

The annexed communication and the statistics it furnishes is referred to in the committee's report, and will be read with much interest:

Having carefully examined and collated

the several papers and information relative to the Northern Michigan Railroad, from Detroit to Bay City, as well as extracting all the details from the official census of Michigan for 1864 bearing on the subject, together with the trade and business reports of the Saginaw Valley for 1867, I am enabled to offer you the following report, showing the estimated cost of the line of the railroad, the amount of traffic that may be derived therefrom, and the certainty of its being a paying enterprise.

I have made the distance 104 miles, as it can not necessarily stop at the Milwaukee Junction, but must come into the city, either as an independent line or have a common depot with a friendly enterprise and not a rival line. I think a most convenient arrangement would be to join the Detroit & Howell Railroad and have a common depot on their grounds on Grand River street. This could be effected at a low cost, and all new roads require to be careful and economical about their terminus in large cities, as the expense of grounds and right of way is a heavy burthen, and when it can be shared with another new project, if only for a time, not only relieves the burthens of both, but imparts stability and confidence at the beginning. With this idea in view, I have not allowed as much for station buildings and other accommodations by \$50,000 as I otherwise would.

I think the estimates for construction will be ample, while if anything I have under estimated the business that this road will command. It may appear at first sight that the dividend is much too high, and comparison will be made with the Michigan Central, and the Detroit & Milwaukee Railroads.

But there is a fallacy in the comparisons, which looks very well on the surface, but at the bottom will not answer that purpose, mile for mile. The capital stock of the Michigan Central, is represented by about \$56,000 per mile or two and a half times the amount of the Northern Michigan; so that the same amount of surplus that would pay 15 per cent. on the latter, would pay six per cent. on the former. The same applies to the Detroit & Milwaukee Road, but not quite to the same extent as their capital is represented by about \$51,000 per mile.

New roads are now more economically constructed and operated than older ones, and if the parties making the road will only take the precaution to have a good road bed with adequate bridging and good ties, one-half of the expense usually following the opening of the new roads can be avoided, and any surplus above eight per cent. invested in a sinking fund for renewals, will always enable the directors to keep the capital stock near their original limits.

A superficial examination of this project on the map may seem to many people of Detroit to be of little benefit to the city. I, however, think different. I think it is of the utmost importance. It will, when prolonged, bring them the trade of the North and North-west, including lumber, salt, plaster, minerals, fisheries, etc. Let those who want to be convinced examine the maps carefully. Let a line of road be once made from Bay City to Port Huron, and the Great Western Railway from Sarnia to London, now dormant, at once springs into life and takes away all that trade going East from Detroit, as it is 40 miles shorter. Make this line at once, and secure the trade, and it is hard to divert it when once it has found its channel.

Yours truly,

WILLIAM SCOTT,
Chief Engineer, Detroit & Howell Railroad.

Mr. Craig then read the resolutions which were offered, but not adopted, at the last meeting. They are as follows:

WHEREAS, It has been demonstrated that commercial and material prosperity of cities and towns in the West demands intercourse with the surrounding and productive country through the medium of railroads; that it is the products of the soil that form the basis of commercial wealth and prosperity. That however bountiful nature may have been in providing a great highway by water to our mart, the prosperity of Detroit demands more close relations with the country through the medium of railroads. That the early construction of the Northern Michigan Railroad by way of Bay City to the Straits of Mackinaw, thence through our mineral region of Lake Superior and connecting with the Northern Pacific Railroad, is a work demanded by the best interests of every citizen and taxpayer of Detroit.

Resolved, By the citizens, business men and tax-payers of Detroit, that we will render such reasonable aid for its early construction as its requirements may demand, and that we will subscribe to the capital stock of said road between Detroit and Bay City the amount of \$200,000, and donate for that purpose the sum of not less than one per cent. on our assessed valuation, when a law for that purpose shall be enacted. *Provided*, however, that Bay City and points shall subscribe to said capital stock \$400,000, and make a like liberal donation.

On the motion to adopt the report of the committee, a spirited debate ensued.

Mr. Craig explained the route from Detroit to Bay City and thence to Superior City by a clear geographical map, showing the advantages of the proposed line. Congress, he said, had been urged to take action in the matter, and if the wealthy men of Detroit meet them half way, the proposed road must succeed. Railroads make cities, and citizens should make railroads for their own benefit. He spoke of our key position on the lakes and our laxity in taking advantage of this important point. Also of the advantages of the connection at Superior City with the Northern Pacific Road, and contrasted the vigorous action of the adjoining large cities in hurrying forward the State to build up the city and help itself at the same time.

A letter from a prominent citizen of Almont, Lapeer county, was read, in which the writer states that the \$100,000 desired in that locality has already been pledged, and will be raised with ease. Almont, he said, would alone raise half the amount if the road promised to be a success.

The report of the committee, including all the resolutions offered for the consideration of the meeting, were then put to a vote, and adopted with but one dissenting voice.

—The track-layers of the Chicago, Rock Island and Pacific Railroad are working in the snow. The Des Moines *Register* says that for the past two weeks there has been a "series of hoeing through snow drifts three feet deep in all the cuts which the track-layers have passed through. The company have spared no exertions in pushing the track forward as rapidly as possible, and their efforts have been attended with no little hardships and sacrifice, for which all hands are deserving of much credit. Having now passed the chief difficulties, the iron is going down at the rate of a mile and a half to two miles a day, and last night the iron horse smoked his meerschaum not many inches short of seventy miles from Des Moines."

Ohio and Mississippi Improvements.

REMARKS OF F. R. BRUNOT, OF PITTSBURG,
BEFORE THE NATIONAL BOARD OF TRADE,
AT CINCINNATI.

After the glowing descriptions which we have just heard of the productive capacity of the South, the magnificence of the great Northwest, the wonderful progress of our whole country in all the elements of greatness, and the glory of our achievements, let me ask your attention for a few moments to our shame. Since 1787 the United States Government has claimed exclusive jurisdiction and custodianship over the great rivers of the country. Nearly sixty years ago—before the era of steam navigation—it began to improve the Ohio river. The plan adopted seemed suitable to the requirements of the traffic. It was based upon the idea that as the width of water channel could be decreased, the depth would be increased, and to that extent facilitate the passage of the craft then in use. Several wing dams were constructed upon this plan in the Lower Ohio. In 1937 the same plan substantially was adhered to by Major Sanders, the Government Engineer then in charge, and the present works are but a continuation on a more extended scale of the system first adopted.

The utmost that was hoped for from the plan of Major Sanders, was, that it would produce a depth of two and a half feet in the channel at low water. The utmost that is now claimed to have been effected at the points where the works have been completed is, that in an ordinary low-water navigation stage, an additional depth of eight to twelve inches has been obtained, but in the times of extreme low water, no material change has been effected. The period of actual cessation of navigation has not been appreciably decreased. In the season of drought the Ohio river in its natural state was absolutely worthless for all purposes of through navigation, and during the same season it is absolutely worthless yet. Arts, manufactures, means of land transportation, ocean navigation—everything, has made a progress during the last thirty years, which words cannot picture to the mind. This thing has alone stood still; not one step in advance has been permitted. The same old plans of sixty years ago, and which for twenty or thirty years have been abandoned by every other civilized nation on the globe, are still persistently adhered to by a government, which, in everything else, is alive and wide awake.*

Yet just as certainly as the genius of civilization has been able to seize upon the ore in our mines, the timber in our forests and the stone in our quarries, and therewith to supplant the inefficient turnpike and its Conestoga wagons by that magnificent channel of commerce—the iron railway—just as certainly and effectively is it within the compass of the same power to seize upon the timber on the hills, the stone in the quarries, and the water in the channel of this grand stream, and construct from them an artery of com-

merce which shall be as superior to it in its present state as is the railway to the common road.

Such a radical improvement of our great rivers is what we want, and the desideratum will never be reached by adhering to the old time schemes. Distinguished engineers have proposed various plans by which they believe the object would be accomplished. The late Chas. Ellet proposed to effect it by a system of reservoirs, in which the surplus waters of the rainy season would be held in reserve to supply the demands of navigation in drought. Another, the eminent engineer now in charge of the Ohio river (W. M. Roberts, Esq.) years ago advocated a system of locks and dams with chutes, the former for low water, the latter for free navigation in high water. Another proposed a system of "open dams and sluices" in combination with locks. Another, a combination of the reservoir and the sluices. Each of these plans has its hundreds of practical minds conversant with the subject who believe their favorite the best, and of course, each has its doubters or active opponents.

The great advances which have been made in the modes of land transportation have been the result of experiment. Every improvement upon the railway or steam engine has resulted from trying somebody's plan. But for this, fac similes of the first steamer would still be laboriously puffing into your ports. The practical experiments which have led to the present perfection in the steamer and the railway, were within the compass of individual means and enterprise. In this matter of the improvement of the navigable capacity of our great rivers, practical experiment is beyond the compass of individuals. Government alone, which rightly claims their control, has either the means or the power to operate on so large a scale. The feasibility or practicability of any of the proposed plans can only be demonstrated by trial, and if the Government will not rise to an appreciation of this fact and make the trial, the Ohio river must remain as it is forever.

Other nations have made great advances in the improvements of their river navigation. With the French no branch of engineering science has had the precedence over this, and they have developed several plans which have accomplished for their rivers just what we desire for the Ohio. Improvements have been constructed upon the Seine and the Marne within the last few years which admirably effect this purpose, and oppose no obstacle to free navigation in ordinary stages of water. They each consist of a lock, a dam with a navigation pass, and a regulating sluice. During high and moderate stages of the water, the navigation pass is free and the regulating sluice open. When the water falls in the navigation pass below the desired level, it is kept up by closing gradually the regulating sluice. When the quantity of water is too small to afford the required depth by this means both passes are closed and the lock is used. When it rises again, the passes are opened and the lock is dispensed with.

It is common to assume that plans which are adapted to the rivers of Europe must necessarily be too diminutive for the grander streams of North America. We compare the Mississippi or the Ohio in its grandest floods with the Seine or the Rhine in their normal condition, forgetting that it is not the Ohio or the Mississippi in their flood tide that we desire to improve. The Ohio above Cincinnati or the Mississippi at points above Alton in drought do not differ greatly from the

rivers named at similar stages. The so-called improvement of the Ohio river when completed on its present plan, will have in its navigation passes a depth of say two and a half feet. The French rivers have by means of their improvement (in low water) a depth of four to seven feet.

What has been done by the French engineers for their rivers can be done more perfectly by American engineers for ours. What has been done by the French government can be better done by the Congress of the United States. The engineers in charge of the work upon the Western Rivers appreciate the importance and magnitude of the improvements required and the capacity of the streams. They have the genius to plan and the ability to execute. The Congress of the United States has never yet appreciated the importance of the work to the nation, the grand results attainable, or the fact that the means required to accomplish such results must be commensurably large. When the States of Ohio, Indiana and Illinois deemed it for their interest to connect the lakes by water with the Ohio river, they did it. When the State of Pennsylvania desired to use the water of her mountain streams to effect a comparatively insignificant water navigation between the head of the Ohio and the Schuylkill, she set about the work and accomplished it at a cost of thirty millions. When the State of New York desired to make a similar connection between the Hudson and the lakes, she spent forty millions and did it. But when the Government of the United States, crying hands off to citizen, corporation and State, from the great river Ohio, undertakes to perfect its navigation, it deals out each decade of years, two or three hundred thousand dollars, or the smallest possible sum which would momentarily quiet the periodical importunities of the Western people! The genius of its engineering is bound down to the petty problem of how to make the paltry sum do some good.

The highest estimate of cost made by the friends of either of the plans yet proposed for the radical improvement of the Ohio river is twelve millions of dollars. The highest estimate on any of the plans by those who oppose them, is twenty to twenty-five millions of dollars.

Is not the radical improvement of the Ohio and Mississippi rivers a national object! You have in the East a great river—great in width great in its depth, great in the commerce which floats upon its bosom—but insignificant in length. Suppose that by some freak of nature the Hudson should be reduced for three months in the summer to an almost worthless navigation—what expenditure would be thought too great to restore it to its normal condition? Would ten, fifty, a hundred millions be thought too much? We have here—from St. Paul to the mouth of the Ohio—from Cairo to Pittsburg, eighteen hundred miles of river—with banks more fertile than the Hudson, richer in mines and forests and wealth producing elements, capable of being made as useful for navigation as is the Hudson, yet now useless for one-fourth of the year.

This Board has expressed the desire that the Government shall enter upon the construction of three great lines of railroad to the Pacific coast. When their trains shall roll down upon the Mississippi Valley laden with the products of the mountains—the great Pacific States beyond the mountains—of the great sea beyond the States—of the great empires beyond the sea—they will find the existing railroad avenues thence to the Atlan-

*General Warren, the engineer now having charge of that part of the Upper Mississippi, proposes plans which, if carried out, cannot fail to accomplish all that could be desired for the radical improvement of the Des Moines Rapids. The appropriation last year to this object is the first and only indication on the part of Congress of an approach to some proper appreciation of either the capacity or the requirements of the Mississippi.

tic cities overburthened by the traffic which they have created along their own tracks. Let the national rivers stand ready to carry off the surplus from the national roads. If the National Board of Trade shall but succeed in impressing upon Congress the national necessity of entering at once upon the work of a radical improvement of the great rivers of the country—this alone will amply repay for all the labor and pains spent in its organization.

Union Pacific Railroad.

COMMISSIONERS' REPORT.

WASHINGTON, Dec. 4.—The Special Commissioners whom the President appointed to examine the Pacific Railroad, have reported substantially as follows:

At the time the Commissioners inspected the road it had been constructed for a distance of 890 miles. They report the general location of the road, as a whole and in its several parts, to be the most direct and practicable that could be found between Omaha and the head of Great Salt Lake, a distance of 1,118 miles, and that the construction of the road in regard to the amount and character of the excavations and embankments, has been remarkably easy. Between Omaha and Granite Canon, a distance of 535 miles, there was not a yard of rock excavation, and the natural surface over a great portion would have presented nearly practicable grades. From Granite Canon westward to the end of the track, the work is less than on Eastern roads, and the most difficult parts are light compared with roads on the Allegheny Mountains. There is but one tunnel in the whole distance—that on St. Mary's Creek, 230 feet in length. Although, generally, the line is well adapted to the ground, there are points where the full capabilities of the country have not been developed, and others where, in its details, the location is radically wrong. In a majority of such cases, the prevailing idea seems to have been to diminish the cost of the work by the introduction of a greater number and sharper curves than the circumstances required. In view of the rapid prosecution of the work they may have been admissible, but cannot justify a permanent adoption of the line as built. While the roadbed is designed to have embankments fourteen feet wide on top, with usual slopes and cuts of not less than sixteen feet width of bottom, the higher embankments are not generally brought to the proper standard, being often incomplete, and in some instances the width on top is less than the length of the ties. Instances occur where the cuts have not been excavated to the depth designed, in consequence of which the grades at these points are higher than was intended, in some cases reaching ninety feet per mile, when much easier grades are shown in the profile. A considerable portion of the ties used in the Platte Valley were cottonwood, and they will have to be replaced by others of better timber. The ties probably average 2,500 to the mile. The track-laying has been as well done as the exceedingly rapid construction of the road would allow. The only deficiency worthy of notice is that in the curves the rails have not been bent to conform to them. Upon portions of the road ballasting is entirely wanting, and can only be supplied by transporting from the most accessible points by rail. The track has, without exception, been laid on the bare roadway, which had not been previously prepared to receive it by a covering of ballast. As a consequence,

except where the embankments happened to have been of gravel or other good material, the track is without good ballast, the surfacing having been done by throwing up the necessary material for that purpose from the sides of the embankments themselves. The bridges on the line consist of stone culverts, girder and truss bridges, and many varieties of trestle and pile bridges. The number of these structures between Omaha and the end of the track is 944, of which 250 are deemed permanent. The remaining 694, with an aggregate length of 43,717 feet, or nearly eight miles will have to be replaced. Of these, 34 are to be replaced by Howe truss bridges, erected on permanent stone abutments and piers, and 660 by box culverts, arches or stone abutments, with girders or trusses of short spans. The rolling stock consists of 117 locomotives, 27 passenger cars, and 1,799 baggage and other cars, beside hand cars, &c. The accommodations for the care, maintenance and repair of the rolling stock, erected and designed, is likewise sufficient to meet current demands, but the process of enlargement in this department must likewise be continued for some time. Machine shops and engine houses are erected or in process of construction at Omaha, North Platte, Cheyenne, Laramie, and Rawlins, with adobe locomotive stalls at Grand Island, Sydney, Sherman, Medicine Bow and Battle Creek.

At Omaha, there is also a shop for the manufacture and repair of cars. The shops already erected are well supplied with machinery and tools, and the crowded condition of those at Omaha sufficiently indicate the necessity for their enlargement, or the early completion of others. The sidings of the road are of ample length, from 2,000 to 3,000 feet, connected at both ends, and nearly every station is supplied with a spare siding for its own special accommodation. The rails are of good quality, generally 28 feet long, of American manufacture, and appear to wear well. Snow fences have been built at a number of cuts in the Black Hills but more will be required at this and other points of the road. The Commissioners estimate the total expenditure which will be required in order that the road, so far as built, may be rendered equal to a fully competent first-class road at \$6,489,550, which includes the expense of changing location to improve the line and diminish curvatures at various points; completing embankments, excavations and reducing grades; new ties in place of cottonwood ties; ballasting and new bridges. There is also included in this sum the estimated cost of 60 new passenger locomotives for the through travel on the opening of the road, at \$14,000 each—\$840,000; repair of locomotives now in use, \$150,000; 44 new passenger cars, \$264,000; 30 baggage mail and express cars, \$144,000; and 500 box freight cars, \$450,000. The foregoing estimate is confined to the 890 miles of road from Omaha to the end of the track, and is a statement of the expenditures deemed necessary to complete the construction and equipment of that part of the road ready for the traffic to be thrown upon it when the line is opened to California. The estimated cost of constructing and fully completing the road from Weber Canyon to the head of Great Salt Lake is \$3,515,550. — *U. S. Mining Register.*

—The Directors of the Missouri Pacific Railroad have accepted the railroad built by Cooper County, from Tipton to Booneville, and it will hereafter be operated by the former road.

The Report of the Secretary of the Interior.

The largest part of Mr. Browning's report relates to the different railroads which have received land grants or subsidies from the Government. Chief among these is the Union Pacific. He says that a standard of construction and equipment for the direction of the examiners of the road was made in February, 1866. In June last Mr. Williams, one of the government directors, was instructed to examine and report upon the condition of the road. It was his report, Mr. Browning says, which led to the appointment of the Special Commission. The Attorney General's opinion was as follows:

"He considered that the duty had, during your and the preceding administration, been judiciously performed, and as it was the main policy of those acts to foster and press on the enterprise, the nature of it required a distinction to be drawn, in some particulars, between a provisional and an absolute completeness of the work. He held that the standard adopted by the Department properly recognized the propriety and necessity of an ultimate revision of the road in order to secure that absolute completeness which, in its early stage, could not be rightly exacted as a condition precedent to the advances upon each successive section, and added, that it was competent for the Executive, by means of further inquiry from engineers and experts in the construction and management of railroads, to provide for a revision of the work theretofore excepted upon the assurances or obligations of the company to supply, as far and as fast as might be, what was needed to make the road conform in all respects to the standard, and that a reasonable amount of securities might be reserved to enforce the performance of this obligation of the company."

So the Special Commissioners were appointed. Their report we give, with other documents relating to the road, in another column. An estimate of the actual cost of constructing the road is given by the Secretary, though for what reason it is not easy to say. The only question between the company and the Government is, Has the contract been fulfilled? If the company has made a profit of ten or a hundred millions of dollars, we have no right to complain of it, but only of Congress which made the bargain. Moreover the estimate is made without reliable figures, and of course, is worth very little.

Of the Central Pacific the Secretary says nothing new, giving only a short report of its progress and its business. A Special Commission was appointed to re-examine this road, whose report had not been received. These Commissioners were Sherman Day, United States Surveyor General of California; R. S. Williamson, Brevet Lieutenant Colonel Corps of Engineers; and Lloyd Tevis. A telegraph report of their decision has been received. They speak very favorably of the road, but say it has "minor deficiencies." Indeed, it would seem that they find the road much like the Union Pacific, but have seen fit to expatiate on its excellencies rather than its deficiencies.

The Special Commission on the Union Pacific has been ordered to re-examine the Sioux City & Pacific, but has not yet reported. Of this road 69½ miles were completed, equipped and accepted last March. The section now being built from Missouri Valley to Fremont will complete this line.

An account is given of the progress of the Union Pacific Railway, Eastern Division (the Kansas Pacific), and of the surveys of routes to continue it to Albuquerque and thence to the Pacific, on the 35th parallel, but no recommendations are made. The cost of surveys in 1867 and 1868 was about \$225,000.

The Central Branch, Union Pacific Railroad, has completed 60 miles within the year. It is entitled to no further subsidy.

The grading of the unfinished part of the Western Pacific has been nearly completed.

No work has been done on the Northern Pacific, and surveys have been neglected for want of an escort, to protect the surveying parties from the Indians. The following statement of previous surveys for this route is given:

"In 1867 two lines were run from Lake Superior. One commencing at the west end of the Lake, and the other at Bayfield. The first, following a westerly course, crosses the Mississippi about 12 miles above Crow Wing; thence runs south of, and near to, Otter Tail Lake, and pursuing the same general course, intersects the Red river at a point between Fort Abercrombie and the mouth of the Sioux Wood river. The second follows a south-westerly course for 14 miles to Pleasant Bay; thence westerly to within 18 miles of Superior; thence its course is direct to the Mississippi, crossing that river at St. Cloud; thence north-westerly up the Sauk valley to the Sioux Wood river, a little to the south of where it joins the Otter Tail river. Both of these lines have such a direction on approaching the Red or Sioux Wood rivers that, when continued westerly, they will pass to the south of and near the Cuyenne river in Dakota. The distance of the first is 232 miles, and its estimated cost \$7,967,000, being an average per mile of \$34,357.48. The distance of the second is 317 miles, and its estimated cost \$11,815,000, being an average per mile of \$37,236.05. The alignment is favorable on both routes. The maximum gradients will not exceed 30 to 40 feet to the mile, and are of limited extent. Upon the Pacific side the surveys were confined to an examination of the Cascade range, with a view to ascertain the relative elevation and practicability of the passes. Three were found, the Cowlitz, or Packwood, 2,600, the Snoqualmie, 3,030, and Cady's, 4,800 feet above the level of the sea."

No report has been received from the Atlantic & Pacific Railroad Company.

The Southern Pacific has surveyed only thirty miles of its route, between San Jose and Gilroy. This thirty mile section is to be completed by April 1, 1869.

The Secretary gives the following table showing the amount of bonds issued to railroads:

Union Pacific, 820 miles.....	\$20,238,000
Central Pacific of California, 390 miles.....	14,764,000
Union Pacific, Eastern Division, 393 miles.....	6,303,000
Sioux City & Pacific, 69 1-2 miles...	1,112,000
Western Pacific, 20 miles.....	320,000
Atchison & Pike's Peak } 100 miles {	640,000
Central Branch U. P. }	960,000

1,793 1-2 miles nearly.....\$44,337,000

There is little in this report, excepting the part relating to the re-examination of the Union Pacific, which is new: and almost the only recommendation which the Secretary ventures upon, is that the President withhold the bonds due the Union Pacific until it has made the repairs and renewals which the Special Commission thinks necessary in order to make the road perfect.

—Track-laying on the Dubuque and Sioux City Railroad west of Iowa Falls has been entirely suspended. The track is laid nearly fifteen miles west of Iowa Falls, and within a few miles of Webster City. It is not probable that any considerable further extension will be made before spring.

Finances of the United States.

According to the Report of the Secretary of the Treasury, it appears that the debt bearing coin interest on the 1st of July, 1868, was \$2,083,003,641 80; debt bearing currency interest, \$126,228,790; matured debt not presented for payment, \$20,527,302 64; debt bearing no interest, \$406,447,314 75—total, \$2,636,207,049 19. The amount of cash in the Treasury was \$131,006,532 25—leaving amount of debt less cash in the Treasury at that date, \$2,505,200,816 94.

The following is a statement of receipts and expenditures for the fiscal year ending June 30, 1868:

Receipts from customs.....	\$164,464,599 56
Receipts from lands.....	1,348,715 41
Receipts from direct tax.....	1,788,145 85
Receipts from internal rev....	191,087,589 41
Receipts from miscellaneous sources, (of which amount there was received for premium on bonds sold to redeem Treasury notes, the sum of \$7,078,203 42).....	46,949,033 09

Tot. rec'ts, ex. of loans....\$405,638,083 32

Expenditures for the civil service, of which amount there was paid for premium on purchase of Treasury notes prior to maturity, \$7,001,151 04).....	\$60,011,018 71
Expenditures for pensions & Indians.....	27,883,069 10
Expenditures by War Dep't..	123,246,648 62
Expenditures by Navy Dep't	25,775,502 72
Expenditures for interest on the public debt.....	140,424,045 71

Tot. expenditures, ex. of principal of public debt.....\$377,349,284 86

The following is a statement of receipts and expenditures for the quarter ending September 30, 1868:

The receipts from customs....	\$49,676,594 67
The receipts from lands.....	714,895 03
The receipts from direct tax.	15,336 02
The receipts f'm internal rev.	38,735,863 08
The receipts from miscellaneous sources, of which amount there was received from premium on bonds sold to redeem Treasury notes the sum of \$587,725 12.....	6,249,979 97

Total receipts, ex. of loans...\$95,392,868 77

Expenditures for the civil service (of which amount there was paid as premium on purchase of Treasury notes prior to maturity \$300,000).....	\$21,237,106 33
Expenditures for pensions & Indians.....	12,358,647 70
Expenditures for War Dep't..	27,219,117 02
Expenditures for Navy Dep't..	5,604,785 33
Expenditures for interest on public debt.....	38,742,814 37

Total expenditures, ex. of principal of public debt.....\$105,152,470 75

The Secretary estimates that, under existing laws, the receipts and expenditures for the three quarters ending June 30, 1869, will be as follows:

From customs.....	\$125,000,000 00
From lands.....	1,000,000 00
From internal revenue.....	100,000,000 00
From miscellaneous sources.	20,000,000 00

Receipts.....\$245,000,000 00

And that the expenditures for the same period, if there be no reduction of the army, will be—

For the civil service.....	\$40,000,000 00
For pensions and Indians....	18,000,000 00
For War Department, including \$6,000,000 bounties...	63,000,000 00
For Navy Department.....	16,000,000 00
For interest on public debt...	91,000,000 00

Expenditures.....\$281,000,000 00

The receipts and expenditures under existing laws for the fiscal year ending June 30, 1870, are estimated as follows:

From customs.....	\$160,000,000 00
From internal revenue.....	140,000,000 00
From lands.....	2,000,000 00
From miscellaneous sources..	25,000,000 00

Receipts.....\$327,000,000 00

The expenditures for the same period, if the expenses of the army should be kept up to about the present average, will be as follows:

For the civil service.....	\$50,000,000 00
For pensions and Indians....	30,000,000 00
For War Department.....	75,000,000 00
For Navy Department.....	20,000,000 00
For interest on public debt...	128,000,000 00

Expenditures.....\$303,000,000 00

THE UPPER PENINSULA.—A well known citizen of our State (Hon. D. L. Latourette, of Fentonville) writes to us as follows:

"It seems to me that the idea of separating the Upper Peninsula from the lower part of the State and organizing it into a separate State or Territory is a move in the *wrong* direction. It would be better, in my judgment, for the people of the State to move in this matter of improving the Straits of Mackinaw so as to provide a wagon road or a passage for railroad trains one or both, either *over* or *under* the Straits, thus uniting the two sections by indissoluble bonds. And when lines of railroad shall stretch along the Upper Peninsula from the head of Lake Superior to Mackinaw, and from the Sault Ste. Marie to Mackinaw and thence to Detroit, Kalamazoo, Jackson, etc., there will be no further discord of interest.

"A tunnel can probably be constructed across the Straits by grading a road bed (or more properly speaking a *tunnel bed*) and constructing a tube of masonry or of metal. Probably fifteen millions of dollars would accomplish it, and there is not a county or town, ship or city or a hamlet in either Peninsula that would not be benefited by the improvement. Congress also ought to aid in providing an uninterrupted communication along our own borders from the head of Lake Erie to the head of Lake Superior, open at all seasons. I say, let there be no separation, but let all go to pass Mackinaw."

We heartily sympathize with all projects that will increase our means of communication with the rich mineral districts of the Upper Peninsula, and hope that the day when a railroad shall connect this city with Houghton, Ontonagon and Marquette will speedily come, whatever may be the nature of our fu-

ture relations to the Lake Superior country. Still, we cannot see how such a bond would lessen the dissimilarity of resources and of interests of the two peninsulas, or especially affect the question of a new State. The railroads that join Michigan to Ohio do not make their separate State organizations inconvenient, nor will we reap fewer advantages from railroad communication with the State of Ontonagon than we shall from such communication with the Northern Peninsula of Michigan.—*Detroit Tribune and Advertiser*, Dec. 21st, 1868.

The movement for a new State to be formed of parts of Michigan and Wisconsin, is gaining strength rapidly in the Territory proposed to comprise the same. The *Marquette Journal* says: The proposed State would extend from the Sault Ste. Marie on the East, taking the whole South shore of Lake Superior as its northern boundary, embracing the nine counties of the upper peninsula of this State and the upper tier of counties in Wisconsin. The area of the State would be about 35,000 square miles and the population would range from 75,000 to 100,000. With a liberal legislation, one calculated to foster our interests, with the moneys raised by taxes of our own property to be expended among us, and the new and varied improvements eventually going on, the State of Superior would readily take rank among its sister States as one of the brightest stars in the constellation; and the untold wealth of its mines, its lumber and its fisheries, would be more thoroughly developed and brought to the markets of the great West.



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5 256	62	15 252	65
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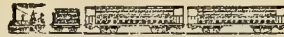
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Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 18:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 120 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 4:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

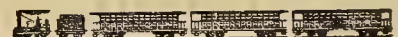
2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

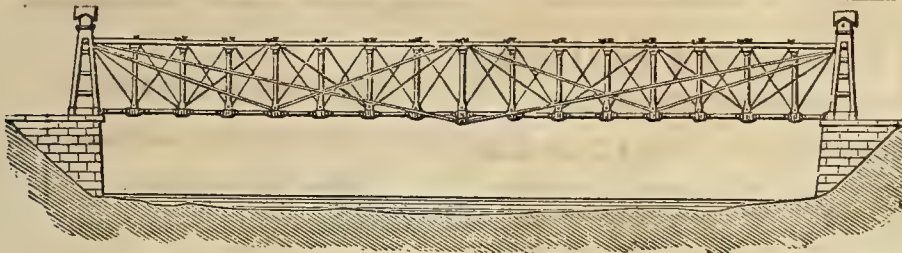
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent

F. B. LORD Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunity of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS
Philadelphia, Pa.

W. M. F. HEWSON,
STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections.

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburgh without Change.

THE PITTSBURGH, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburgh, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburgh, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.

350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

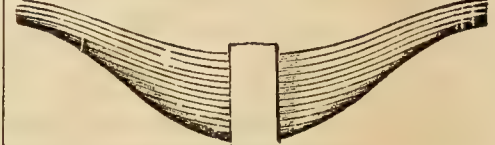
RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to tent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner, at the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '87.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave " "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave " "	9 45 "	10 40 "	6 30 a.m.
" SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent.
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West,
North-west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express....	7 00 a.m.	10 50 p.m.
Indianapolis and Cairo Express.....	7 30 a.m.	9 30 a.m.
Cairo and St. Louis Express.....	2 20 p.m.	4 08 p.m.
Springfield, Quincy and St. Joseph Express.....	2 20 p.m.	4 08 p.m.
Chicago Lightning Express.....	7 15 p.m.	11 30 a.m.
St. Louis Lightning Express, Sunday instead of Saturday night.....	8 50 p.m.	6 15 a.m.

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
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Lawrenceburg Accommodation.....	10 00 a.m.	8 35 a.m.
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Connorsville and Cambridge City.....	4 00 p.m.	9 15 a.m.
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Lawrenceburg.....	4 45 p.m.	2 20 p.m.
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Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. E. RICHARDSON, Superintendent.

F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

[ARCHED AND FLAT.]



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY

LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continued to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING

LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.

WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same, &c., &c.

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS,

THOS. T. TASKER, JR.,

CHAS. WHEELER

S. P. M. TASKER

HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M. Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.3 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at time for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, DECEMBER 31, 1868.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " " per month.....	3 00
" " " six months.....	12 00
" " " per annum.....	20 00
" column, single insertion.....	5 00
" " " per month.....	10 00
" " " six months.....	40 00
" " " per annum.....	80 00
" page, single insertion.....	75 00
" " " per month.....	25 00
" " " six months.....	110 00
" " " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,

Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.		
	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.		
Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:20 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:30 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.		
Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.		
Depot on Pearl street, bet. Plam and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.		
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.		
Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION		
Indianapolis, Rushville and Coopersville Mail.....	7:00 A. M.	10:45 A. M.
St. Louis Express.....	2:30 P. M.	5:10 P. M.
New Castle and Cambridge, City, 7:00 A. M.		10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 P. M.
Harrison Accommodation.....	10:10 P. M.	8:20 A. M.

OHIO AND MISSISSIPPI.		
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.		
Mail.....	7:40 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.		
Express.....	6:40 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.		
Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Movement of Population Westward; Necessity of continuous Railroads.

The rapid movement of population is known to every one, and forms the basis of the growth and prosperity of the country. The greater part of the whole surface of the United States, which is that lying West of the Mississippi River, is unoccupied and unsold. It is owned by the Government, and the fact that it is, presents an obstacle to the advance of population. Why? Because that immense domain is not yet penetrated by railroads, and without them population can not advance against Indians and buffaloes. Railroads there must be; or population will stop with the first tier of States beyond the Mississippi. Now let us ascertain how fast population does move Westward, and we shall have a good idea of the necessity of new railroads through the public domain. To do this, let us divide the Central and Western country thus:—Let the *first* section be the States between the Alleghenies and the Mississippi; the *second*, the first tier of States beyond the Mississippi; and the *third*, States and territories between the first tier and the Rocky Mountains. The first group will comprise West Virginia, Ohio, Indiana, Illinois, Michigan, Wisconsin, Kentucky and Tennessee. The second will be Minnesota, Iowa, Missouri and Arkansas. The third, Kansas, Montana, Dacotah, and Colorado. Now let us take the growth of these sections (in the aggregate) from 1840 to 1868. Begin with the decennial period from 1840 to 1850:

	1840.	1850.	Per cent.
1st Section—Ohio, Indiana, Illinois, West Virginia, Michigan, Wisconsin, Kentucky and Tennessee.....	4,508,921	6,658,382	47
2d Section—Minnesota, Iowa, Missouri & Arkansas.....	524,388	1,088,232	108
3d Section—Dacotah, Kansas, Montana, Colorado & Nebraska.....	.....	.....	.....

Now let us take the same sections from 1850 to 1860:

	1850.	1860.	Per cent.
1st Section.....	6,658,381	9,424,369	40
2d Section.....	1,088,232	2,456,098	125
3d Section.....	.....	174,000	...

We observe in this table that the *ratio* of increase in the first section *declines*; while that of the second section, in the first tier of States beyond the Mississippi increases; and the territories beyond begin to fill up. Now, let us make an estimate of the increase from 1860 to 1868, based on the increase of votes, from 1860 to 1868, which, as in both were excited political elections, is nearly correct:

	1860.	1868.	Per cent.
1st Section.....	9,424,369	14,850,000	55
2d Section.....	2,456,098	3,900,000	58
3d Section.....	174,000	520,000	300

This table shows that the *wave of population* is now rather *reflex*—turning on itself. It will be observed the first section, East of the Ohio, is actually *gaining* on the *ratio* of increase; while the second section, first tier of States beyond the Mississippi is *declining*, being 125 per cent. from 1850 to 1860; and only 58 per cent. from 1860 to 1868, or 12½ per cent. per annum in the former period, and 7½ per cent. in the latter. On the other hand, the increase of the third section, though apparently large in ratio, is actually small in fact. But, to get at it more truly, let us make a table of increase, from 1860 to 1868, on the East and West banks of the Mississippi, throwing the second and third sections together. Thus:

	Per 1860.	1868.	cent.
1st Section.....	9,424,369	14,850,000	55
2d & 3d Sections..	2,639,098	4,420,000	65

We perceive at once, that considering the nine States and territories West of the Mississippi are new States, where growth is greatest, that their relative growth, though a little faster than the old Central West, is nothing like so rapid as the growth of the Central States, at the same period in their advance. For this there are two causes: 1. That in fact, the good or rich lands diminish rapidly, as we get on to the great plains sloping up to the mountains; for this deficiency there is no help, except by better cultivation. But, there is another cause, to which we ask the reader's attention.

2. But, another great reason is, that no railroads extend West (beyond the Missouri) except the Union Pacific, which will carry and protect the settler in that immense district inhabited by Indians and buffaloes. This was never the case with the great Central region, East of the Mississippi. Perfect security was given the settler wherever he went; and the consequence is that Illinois, Michigan and Wisconsin, were settled as early and as rapidly as Ohio. Not only were the lands good, but perfect peace and security reigned throughout the Central Northwest. This it was which has caused such an immense immigration and rapid growth to the Central West. But this does not exist in that vast government domain, which is 1,200 miles in breadth, and 1,800 miles in extent; and within that region there will be no great settlements till it is penetrated by five or six different railroads. It will be impossible, Shall these roads be made? Or, shall the wave of population be driven back, and the great interior of this country remain unsettled? It is a vital question. We see that many of the small-fry in newspapers say, the roads shall not be made; for they can not be made without Government aid. Well, what then? Is the immense interior of the United States never to be settled, because we must respect the Indians on one hand, or fear to use the public credit on the other? Where

then will be the rapid growth of the West? It can not exist; and when that stops, *foreign immigration will stop*. You can not keep up foreign immigration, without new and cheap lands,—*unless you make railroads as fast as the advancing people want them*. This is a fact which Congress and all politicians had better look at. Give no aid to other Pacific Roads, and you have two results; 1. You will have a grand monopoly in the Union Pacific Railroad; 2. You will stop all immigration West, except in the immediate line of that road. Are these results which an intelligent American citizen wants? Let politicians try it; and within two years there will be an outcry from the whole West.

Pacific Railroad Grants.

There have been many things connected with the affairs of the Union Pacific Railroad, which have tended to create popular disgust with the whole business of granting subsidies to railroads. It is needless to go into details here. It would be a long story. We have no desire now to deepen the impression which the facts publicly known have already made. Perhaps the real danger is that this feeling is becoming too unrestrained, and extending itself beyond just limits. Should it prevent the construction of either of the competing Pacific Roads which have been projected, by exciting a determination to withhold all Government aid from them, then just the worst possible thing will have happened. From the manifestations we have already seen, we should very much regret to see one mammoth corporation in possession of a complete monopoly of the Pacific Railroad business. This disaster, should it happen, would only be mitigated by the dreary prospect of anything like permanent success which this route afford, and the consequent certainty of another being sooner or later constructed.

This paper was the first to publish the alleged substance of a recent conversation of General Grant with Hon. Oakes Ames on this subject. While we do not doubt the intended accuracy of Mr. Ames in his version of the matter, it must not be forgotten that, as President of the Union Pacific Railroad, he might very well have been addressed somewhat differently, and what was said by the President-elect may have sounded otherwise to him, than would have been the case with a person entirely disinterested. We can well understand why General Grant should speak strongly in this connection. He ought to be out of patience with this whole Union Pacific business. And on the other hand, the head of that corporation might easily have mistaken what was intended for his company, as extending to the others, and to all railroad grants. We are not disposed, therefore, to lay much stress upon the assumed intention of Gen. Grant to oppose all further subsidies. In fact, we believe his purpose is to favor these enterprises, but within careful limits, and subject to judicious safeguards. We are sure he does not desire to make a gigantic monopoly of the "Union Pacific."—*Cincinnati Evening Chronicle*.

JAY COOKE & Co. furnishing the money, the entire line of railroad from Port Huron to Chicago will be in operation within two years.

The Union Pacific Railroad.

OFFICIAL REPORT OF ITS COST.

In the annual report of the Secretary of the Interior, reference was made to an estimate of the actual cost of constructing this work, submitted to him by Jesse L. Williams, one of the Government Directors. That report, with others in regard to the road, has been submitted to the House and ordered to be printed. We now publish it in advance:

FT. WAYNE, IND., November 14, 1868.

SIR: The near approach to the meeting of the two Pacific Railroad Companies, with their respective lines of track, thus opening railroad traffic across the Continent, gives importance to every fact bearing upon the success of this great national work. The manner of its construction, the degree of its completeness, and the probable cost as built, are believed to be points of special interest with the department at this time.

Hitherto much uncertainty has existed as to the cost of a railroad crossing the western half of the continent. The topographical surveys made by order of Congress, in 1854, could, in one season, but partially develop this vast unoccupied region. Its adaptation for railroad construction, and the possibility of avoiding the rugged mountain districts, by favorable east and west valleys, could be determined with certainty only by the definite final location. From the progress made in construction, the cost can now be estimated with sufficient certainty, for any purposes of the department.

Having, as a member of the Locating Committee, passed over the line adopted, and having taken some notes during the careful professional examination of the entire work to Salt Lake, in July last, under your instructions, it seems proper, under the Thirteenth Section of the amendatory act, to report any facts obtained throwing light upon this subject. This statement, as far as it bears upon the cost, may furnish the same information, but in different form, with that sought through the Government Directors by your letter of the 7th of October last.

It now seems probable that, in the division of the work between the two companies, this company will build to some point near the northern extreme of Salt Lake. Assuming the place of meeting to be a little west of Monument Point, supposed to be the best point for the junction of the projected Oregon branch, the total length of the line built by the Union Pacific Company will be about 1,110 miles.

The cost of the road, as shown on the books of the railroad company, is, of course, equivalent to the contract price per mile, which, for the first nine hundred miles, has heretofore been reported.*

But the actual cost to the contracting company, understood to be an association embracing most of the larger stockholders in the railroad company, is shown only by their private books, of which the Government Directors have no knowledge. In the present unfinished state of the work, even a full statement of the expenditure to date by the contracting company would throw little light upon the cost of the entire line. On this point

*Whether the last 200 miles has been let to the same contracting company, or is being built directly by the railroad company, I am not informed.

a more satisfactory view can now be presented by an approximate estimate from the most accurate data available. A summary of such estimate for 1,110 miles I here submit. It does not include the whole cost, as the road should be completed, but as heretofore built and accepted by the Commissioners:

ESTIMATE.

Grading and bridging 1,110 miles, including trestle bridging; also, How truss bridges and stone culverts, so far as built or commenced	\$10,981,472
Iron rail for 1,110 miles, delivered on the west side of the river at Omaha, including six per cent. of length in sidings	10,972,837
Spikes, chairs, fish plates, switches, &c., delivered at Omaha, for the same length of road	1,018,823
Transportation of iron rails, chairs spikes, &c., from Omaha to the track-laying party, averaging near 550 miles, including hauling out ties from Omaha, Laramie and other points of delivery, with other miscellaneous transportation	2,228,069
Cross ties for 1,110 miles, with sidings as above, delivered at Omaha, Laramie and other points of distribution, about three millions in all, of which, probably, 1,850,000 are mountain pine, 150,000 cedar, 250,000 hard wood (not oak), and 800,000 cotton wood	2,942,500
Track-laying 1,110 miles, including sidings, as per contract, including probable allowance for delays	1,160,000
Equipment on 1,110 miles, including rolling stock, shops, stations, &c., estimated at same rate per mile, as on first 710 miles	6,438,000
Add cost of preliminary surveys, and final location, from 1863 to 1868 inclusive, not including land and town site surveys, probably about	750,000
Add also for engineering and contingencies in construction, general expenses, interest on capital advanced at commencement of the work,* say	2,000,000
Telegraph line 1,110 miles, as it is being built	333,000
Total	\$38,824,821
Average per mile	34,977,032
Average per mile for 1,110 miles of track, superstructure included, and a fair proportion of the allowance for contingencies	17,000

The prices affixed are considered a liberal allowance for what has been actually paid to the sub contractors, and for materials purchased, not covering the second profit, which, of course, is due to the intervening contracting company.

In this statement of cost, the bridging, equipment and general finish, as I found these items up to August last, on the first 710 miles, including shops and station buildings

*No account is taken of interest paid by the company upon their first mortgage bonds on the one hand, nor of their receipts from net earnings of the road on the other hand.

then commenced, is taken as a basis for the whole line. All permanent bridges and trestle culverts since substituted in place of temporary trestle-work, together with the truss bridges proposed on the Weber river, are also included.

The degree of confidence to which an estimate of such magnitude is entitled can be better determined by stating its elements. The main items, such as iron, ties, track-laying, &c., being matters of public contract and purchase, can vary but little. These constitute nearly half the whole estimate. The items less certain are the grading, bridging, trestlework, equipment and general contingencies. Of the sufficiency of these, every practical engineer acquainted with the route will form his own opinion. As respects the grading and trestlework, the engineers who made the final location could, from their notes, make a more accurate estimate. The difference, however, could not materially change the general comparison between the *actual* outlay and the means provided.

In the settlement between the Board and the contractors for the first 246 miles, reaching to the one-hundredth meridian, made in December, 1866, the cost of iron rails delivered at Omaha, was found to be near \$135 per ton. This is taken as a basis for the first 440 miles, most of which was burdened with the large cost of Missouri river navigation. Iron rails for the last 670 miles have been and are being delivered at Chicago under public contracts, as I understand, at an average of \$83 to \$85 per ton. They are estimated at \$85. Adding railroad freight to the Missouri at two cents per ton per mile, with \$2 50 per ton for transferring across the river, gives for this very large item a reliable standard of \$97 50 per ton at Omaha. Hauling out iron and other materials to end of track is placed at two and a half cents per ton of 2,000 pounds per mile.

As respects the grading, the two heaviest sections on the work have been carried into the statement at the estimate of the locating engineers as reported to the company. In all these are nine or ten short sections of heavy grading, west of and including the expensive parts of the Black Hill range, amounting to 45 to 50 miles. In most cases this is estimated, not from the engineer's notes, but by comparison with other similar works. Intermediate between these points of heavy work, which embrace most of the rock excavation, the grading is generally of the ordinary character, corresponding in amount of material moved with the cheaper roads in the States further east. The very favorable formation in the Platte and Lodge Pole Valleys is well known. These divisions are estimated by the mile in comparison with other similar work. The earth on the entire line is generally light and cheaply removed, which in part offsets the extra cost of supplies.

The undersigned recognizes the various and necessarily large expenses of a general and contingent character incurred in conducting an enterprise of such magnitude. For this the allowance of two millions would seem to be adequate.

For 1,110 miles of the road the cash value of the Government bonds and the company's first mortgage bonds, for which this subsidy forms the basis, may be estimated as follows: United States bonds from Omaha to the eastern base of the Rocky Mountains, Black Hill Range, as fixed by the President, 526

miles, at \$16,000.....	\$8,416,000
United States bonds thence for 150 miles, at 48,000.....	7,200,000
United States bonds for the remainder of 1,110 miles, being 434 miles, at \$32,000.....	13,888,000

Total United States bonds bearing 6 per cent. in currency.....	\$29,504,000
Average per mile.....	26,580

The company, as the road progresses, issues its own first mortgage bonds to the same amount. These are six per cent, thirty year bonds, principal and interest payable in coin, and are a prior lien to that of the Government.

Estimating the Government bonds at par, and the company's first mortgage bonds at 92 per cent over all expense of agencies and commissions, the total cash proceeds amount to \$6,647,680, averaging per mile, \$54,034.

The lands granted by Congress, whatever may be their value, not, in my judgment, very large, is a further bestowment from the Government.

The gentlemen composing the contracting company, whose enterprise and experience so rapidly builds the road, merit large compensation. And it is gratifying to find from the foregoing estimates, that between the necessary outlay the means provided by law, there is very ample margin for profit after retaining in the hands of the Government to be expended by the company on the road, a liberal proportion of the unpaid subsidy, sufficient to complete and equip the work according to the standard of the law. If finished in this manner, under a higher rule of inspection than heretofore, the work will invite the through commerce between the two oceans, meet the great national objects in view, and secure safety, certainty and dispatch in its traffic.

The idea of bringing the road in its equipment, appointments and permanent finish to the proper standard of an efficient work, by continuing the construction after opening for traffic is by no means new. The first object in railroad construction is, very properly, to lay the rails, even on an incomplete roadway if necessary, so as to transport stone, ballast and other materials with which the road, its shops, &c., are enlarged and completed. Railroad managers of experience well know the necessarily large increase of the construction account during the first few years, by work properly belonging to the original construction. There is nothing in the circumstances attending the Pacific Railroad to make it an exception, but much to enforce the general rule. If diverse views exist on this point, the difference can only relate to the source from which the completion and equipment fund shall be drawn. Not only the public interest, but the value of the securities of the road, will be enhanced by putting into the work a further portion of the subsidy, rather than in burdening the future income with these unavoidable expenditures.

The delay in presenting these estimates beyond the time promised has occurred, mainly, from the necessity of awaiting a personal inspection of the profile beyond the Wahsatch Range, the final location of which division was but recently completed. Respectfully submitted.

J. L. WILLIAMS,

Government Director, U. P. R. R.

Hon. O. H. BROWNING, Sec'y of the Interior.

Chesapeake and Ohio Railroad.

The annual meeting of the stockholders of the Chesapeake and Ohio (late Virginia Central) Railroad Company was held in Richmond on the 28th ult. Gen. Williams C. Wickham, of Hanover, was elected President, by a majority of 31,104 over Col. Fontaine, who has long held the position. The whole number of votes cast was 63,384, viz:

	Wickham.	Fontaine.
Private stockholders.....	203	4,642
Individual proxies.....	1,901	9,498
County and City proxies.....	25,000	2,000
State proxies.....	20,140	.....
Total.....	47,244	16,140
Majority for Wickham.....	31,104	.....

On the announcement being made, General Wickham thanked the friends who had supported him, and promised to do all in his power to advance the interests of the road. The *Richmond Dispatch* says that the new President "is a gentleman of education and talent. He has energy and strong practical sense, and combines with these qualities that physical strength and capacity and endurance of labor and fatigue which are so highly important in his relation to the great work now entrusted to him. The *Dispatch* also says that "the friends of General Wickham, in pressing the change by which the Chesapeake and Ohio Railroad has been placed under his chief direction, averred with great positiveness that under his management the money to build the road would be promptly obtained, and that the work would be finished in a short time—as indeed it may with the money at command.

Gen. Wickham, after being elected, offered the following resolutions, which were adopted:

Resolved, That the mortgage executed by the President and Treasurer of the company on the 1st day of October, 1868, under instructions from the board of directors, for the purpose of securing a loan of \$10,000,000 (or two million pounds British sterling,) be and the same is hereby approved and ratified.

Resolved, That the contract entered into on the 31st day of August, 1868, between the Virginia Central Railroad Company and the commissioners of Virginia and West Virginia, for the construction of the railroad from Covington to the Ohio River, be and the same is hereby ratified.

The following gentlemen were elected directors of the company:

H. C. Cabell, Franklin Stearns, Horace L. Kent, John S. Mulford, Dr. Alexander Sharp and Chas. T. Wortham, of Richmond; John Wood, Jr., of Albemarle; John Echols, of Augusta; James G. Paxton, of Rockbridge; Dr. John G. Hunter, of Greenbrier, W. Va.; Alexander R. Humphries, of Monroe, W. Va.; John Slack, Jr., of Kanawha, W. Va.; H. C. Parsons, of Putnam, W. Va.; Jno. S. Witcher, of Lincoln, W. Va.

The receipts of the Western Union Railroad Company, for the week ending December 21:

	1868.	1867.	Increase.	Decrease.
Freight.....	8,079 31	\$7,733 27	\$296 04	
Passengers.....	2,946 65	3,246 32		\$299 67
Express & Tel.	350 00	370 00		220 00
Mail.....	375 00	375 00		.....

Totals.....\$11,750 96 \$11,974 59 \$296 04 \$519 67

Receipts from January 1, to December 21:

1867.....	\$757,547 23
1868.....	752,320 67
Decrease.....	\$5,226 56

Aid to Pacific Railroads.

"The proposition to which we briefly referred yesterday, for aiding Pacific Railroads, and for issuing 'land bonds,' involves a loan from the Government of \$25,000 per mile, we will say, for which a first mortgage will be given on the road, machinery, &c. instead of a second mortgage, as in the case of the Union Pacific Road. This will leave the Company's lands free to secure bonds in small sums, for which only are the lands to be sold. In this way (taking up bonds by sale of lands) the bonds issued to raise money over and above the amount borrowed of the Government, on first mortgage, will be redeemed. The lands should be sold at a low price, to meet the objections of those who are opposed to land monopolies, by which land is held at high prices."—*Cincinnati Chronicle*.

The above article expresses forcibly our views on this subject. That we should have aid from the Government to build these roads, no one will deny, at least no one, who is capable of taking an enlarged view of our present national condition. The world is moving onward; nations are contending with each other (not in the tented field by force of arms) but in great onward marches toward a higher civilization, opening up new avenues of commerce, new channels of political, civil and religious intercourse. But laying aside these great international advantages derived from building our Pacific roads, let us view the subject simply as regards ourselves, as to how much they will redound to our own national benefit.

We have an empire rapidly building upon our Pacific coast, our possessions there extending northward almost to the limits of this continent, with an intervening space which may be ours, (a consequence, naturally resulting from the building of these roads). To the south we have Sonora, Sinaloa, Chihuahua, and in fact all (if we want it) of old Mexico, whose locked-up agricultural and mineral wealth awaits only the genius of American enterprise to be liberated. Towards this country we have no just cause for a war of conquest, to make it our own; besides it would be contrary to the spirit of our Government. So, also, would it be, to sit quietly by and see any European power erect there a form of government inimical to our own. That Mexico will in time, fall to this country, is as sure as are the laws of gravitation.

How and when, are the points only to be considered. With a Southern P. R. R. these points are settled. With a Northern P. R. R. the same arguments are applicable in full force to British Columbia, (though we think our Canadian neighbors are over-sensitive on this subject.) A few short branches hereafter constructed, as they may be needed, to the very doors of this population, which will every year become more and more Americanized would save us a war of conquest or even the purchase of either Mexico or the British Possessions, for in a short time they themselves would be, without doubt, knocking at the very portals we had erected for their admission. Aside from these prospective advantages, (and now we address those who are opposed to the acquisition of more territory) we would say, our own immediate wants require this Northern road; the great wheat farm of the world requires it in order to furnish cheap bread to all the Atlantic seaboard as well as to England; the people of Montana, one of the richest mineral districts in the United States, require it; the people of the Pacific coast, in

Oregon and Washington territory require it; the people of New England, New York, Michigan, Wisconsin and Minnesota require it.

Every member of Congress from these states not in the interest of the Union P. R. R. must look to this. Their constituents, one and all, will demand it at their hands. We hope to see a bill in aid of these roads not only introduced early in the present Congress but passed unanimously, as it should be. All the Boards of Trade from New England, and New York to St. Paul have recommended it. The great national convention of Boards-of-Trade, recently held at Cincinnati, recommend it, and are not these bodies composed of the best business men of our country—men above all others best qualified to judge of the wants of the country as well as the ability of the Government to supply these wants?

Petitions to Congress on this subject are originating simultaneously, and being almost unanimously signed throughout the whole north and northwest. Can Congress, when these petitions are brought forward by our special representatives, do less than the whole North and South ask, in fact demand? The Central States have their road with a much more liberal subsidy than we ask. Cannot we of the North and South have ours?—*Superior Gazette*.

RAILROAD MEETING—On Monday evening last an initial meeting of many of our prominent citizens, was held at the office of Judge Gates, for the purpose of discussing the question of Douglas & Co. issuing additional bonds in aid of railroads, and also to draft a suitable bill to be presented to our State Legislature for passage, authorizing the county to issue such bonds.

After a protracted debate the meeting concluded by appointing a committee of five, composed of P. E. Bradshaw, H. Hayes, E. C. Becker, E. W. Anderson, jr. and H. Robbins, to prepare a bill and submit the same at a general meeting appointed for next evening at the Court Room.

On Tuesday evening a well attended meeting convened at the Court Room. Hon. Wm. R. Perry presided, and Col. E. C. Becker acted as Secretary. The Committee presented a bill drawn by them during the day, which, on being read by the Secretary, was, after some discussion, unanimously adopted.

The bill is similar in many respects to the one for \$100,000, which became a law last April. It provides that \$200,000 in thirty year bonds, drawing 7 per cent. interest, be paid to the first company which shall construct, equip and complete within three years from the date of the act, a railroad from the Bay of Superior within the town of Superior, in a southerly or southwesterly direction, to the navigable waters of either the Mississippi or St. Croix rivers; \$100,000 of the bonds to be paid when the road bed is completed, including culverts, bridges and masonry, and the rails laid thereon to the limits of Douglas county; the remaining \$100,000 to be paid when the connection is made with either of the aforementioned rivers, and the company regularly transporting cars, freights and passengers over the entire line.

This proposed \$200,000 bonus, if it becomes a law, which in all probability it will, added to the \$100,000 bonus voted on and carried last April, ought to be sufficient to induce the speedy completion of a railroad to Superior.—*Superior Gazette*.

The New York Central Railroad Dividend

The New York Central Directors have declared a dividend to the stockholders of 80 per cent. in certificates and 4 per cent. cash on the stock and the certificates, equaling in all \$22,829,600. This amount is said by the Directors to represent the investment of net earnings in construction, real estate and other acquired property, which the Directors say ought properly to be represented in the stock account of the company. The company has no legal right to make new issues of stock, and the certificates are therefore issued in anticipation of an application being made to the Legislature for authority to make an additional issue of shares, into which the certificates are to be convertible; in the meantime they entitle the holder to the same rate of dividend as may be declared upon the existing stock. These certificates are a novelty in finance, and Wall Street not knowing how far they may be valid as a legal instrument, the brokers decline to deal in them separate from the stock, so that all transactions in the stock are done with the certificate attached, and not ex dividend. The stockholders were taken by surprise in the declaration of this extraordinary dividend. The Directors are said to have decided upon taking this action at a meeting held at the residence of one of the Directors near midnight on Saturday last, and the certificates were prepared during the sacred hours of the Sabbath, excepting a certain amount which had been previously filled out and were taken by the largest stockholder, on the instant that the resolution was adopted, in order to evade expected legal proceedings. This surprise movement has produced great excitement in Wall street, and has caused heavy losses and failures to parties who happened to have sold the stock for future delivery.

It is difficult to reconcile this action of the Direction with the repeated professions of the officers of the road. Two years ago, the company made an effort to procure the consent of the Legislature to increase its charges, and the great argument urged was that, in the absence of such increase, it could not earn dividends. Now we find its managers declaring a dividend equivalent to \$23,000,000; which they say represents net earnings invested, and yet leaves a balance of \$1,000,000 in the Treasury! Where this enormous amount of net earnings comes from, after the interest and dividends have been provided for, it is a mystery into which the stockholders have a right to inquire. The following figures, compiled from the official reports of the company, show the earnings, expenses, interest, dividends and surplus income of the company for fourteen years:

Year	Gross Earnings.	Expenses.	Net Earn'gs.	Not div'd's	Am't p'd	Surplus and income account
1854	\$3,916,335	\$3,088,041	\$2,830,291	\$2,691,978	\$149,108	
1855	6,363,581	3,401,435	3,162,125	3,861,674	300,451	
1856	7,707,344	4,097,867	3,609,481	2,962,323	647,158	
1857	8,027,251	4,435,515	3,773,736	3,003,729	570,674	
1858	6,528,413	3,447,292	3,011,121	3,009,659	32,071	
1859	6,200,849	3,349,429	2,551,420	2,826,595	24,825	
1860	6,957,241	4,278,841	2,768,400	2,611,538	63,862	
1861	7,309,042	4,647,779	2,661,063	2,616,942	44,121	
1862	9,395,828	5,607,750	3,749,078	2,935,761	1,113,916	
1863	10,897,631	7,032,482	3,865,143	2,790,020	1,074,123	
1864	12,997,890	9,576,466	3,421,431	3,334,798	86,636	
1865	13,975,524	11,354,282	2,621,242	2,539,811	66,421	
1866	14,596,785	11,469,595	3,127,189	2,640,557	486,632	
1867	13,979,514	10,972,362	3,007,450	2,757,232	250,168	

This statement shows that the surplus income for the last fourteen years amounts to only \$1,900,000; assuming that this money has been invested in new constructions and

real estate, it has yet been represented by an increase of capital amounting to over \$5,000,000. Where then is this enormous stock dividend represented? If the road had really been so prosperous as the directors say it has been, how came it to pass that its dividends have been made with so much difficulty in some cases, and that on Mr. Vanderbilt gaining control of the road there was outstanding a debt of about \$500,000, contracted in the effort of Dean Richmond to make the usual dividend? We have no doubt that, during the short period of Mr. Vanderbilt's control, the net earnings of the road have been increased; but future expense accounts will show that this has been accomplished mainly through neglect of the condition of the road.

This huge "watering" operation appears to have been perpetrated for a double purpose; first, as a speculation, enabling the Directors to make a large profit on their stock, by deceiving the public respecting the real prosperity of the road; and next to create an argument with which to influence the Legislature in favor of an advance of rates; for, with the stock increased to \$51,000,000, it will clearly be easy to plead that the Company can not earn dividends. This is the latest development in the corrupt speculative management of our railways.—*Economist*.

New York Central Railroad.

At a meeting of the Directors of the New York Central Railroad Company, held on the 19th day of December, 1868, the following resolutions were passed:

WHEREAS, This company has hitherto expended of its earnings for the purpose of constructing and equipping its road, and in the purchase of real estate and other properties, with a view to the increase of its traffic, moneys equal in amount to eighty per cent. of the capital stock of the company; and whereas, the several stockholders of the company are entitled to evidence of such expenditure, and to reimbursement of the same at some convenient future period; now, therefore,

Resolved, That a certificate signed by the President and Treasurer of this company, be issued to the stockholders severally, declaring that such stockholder is entitled to eighty per cent. of the amount of the capital stock held by him, payable rateably with the other certificates issued under this resolution, at the option of the company, out of its future earnings, with dividends thereon, at the same rates and times as dividends shall be paid on the shares of the capital stock of the company—and that such certificates may be at the option of the company convertible into stock of the company, whenever the company shall be authorized to increase its capital stock to an amount sufficient for such conversion.

Resolved, That such certificates be delivered to the stockholders of this company at the Union Trust Company, in the city of New York, on the presentation of their several certificates of stock, and that the receipt of the certificates provided for in these resolutions shall be indorsed on the stock certificate.

Resolved, That a dividend of four (4) per cent. free of Government tax, is hereby declared, payable on the 20th day of February next, upon the stock of this company, and also upon the interest certificates of the company this day authorized.

The interest certificates authorized by said resolutions will be issued to the several stockholders entitled thereto at the office of the Union Trust Company, in the city of New York, where the same will be ready for delivery on the presentation of the stock certificates.—Dated Dec. 21, 1868.

E. D. WORCESTER, *Treasurer*.

MICHIGAN RAILWAYS.—From letters to the *Detroit Free Press*, we compile the following items concerning Michigan roads. The people of Muskegon were to vote on the 18th inst., on the question of raising \$60,000 in aid of the Muskegon and Ferrysburg Railroad. A number of practical and influential men who opposed this movement in the spring have now signed the requisition in its favor.

The voters of Ottawa county have also decided in favor of carrying out their part of this projected lake shore line, of which the Muskegon portion is but a link. And so it is likely to be carried on, link by link, through the lake shore counties until one end rests on Michigan City, and the other reaches either Traverse City or Northport, on Traverse Bay. For a northern terminal point for a Western Michigan railroad there is no better place than Northport. Its splendid, spacious, almost land-locked harbor, is the constant resource of Lake Michigan and lower lake-liners for either wood or shelter. It is but an hour's sail off the regular commercial highway.

A delegation of influential Hillsdale citizens, headed by Congressman Waldron, have been in consultation with the Directors of the Jackson and Fort Wayne Railroad Company, for the purpose of urging that the road be continued from Jonesville direct to Hillsdale. If the road goes to Hillsdale the Jonesville people will not co-operate in building it, and the road has already been located at Jonesville, and their subscription of \$100,000 accepted, with the understanding that the road shall be carried across the track of the Michigan Southern at Jonesville, and from that point the only feasible way to reach Hillsdale is to run along by the Southern track. Hillsdale is about two miles out of the line of the proposed road between Jackson and Fort Wayne. The Hillsdale people are willing to pay all the expense. They have raised over \$100,000, and are willing to double that amount if necessary.

COST OF CARRYING FREIGHT.—A generally accurate cotemporary prints the following: "The estimated cost of conveying a ton of merchandise a mile on the ocean is from half a cent. to one and a half cents; on the lakes two cents; on the rivers two and three-fourths cents; on the canals two to five cents, and on railways from three cents to three and a half cents." Per contra; at a recent trial a prominent manager stated that he had made contracts to carry flour at one cent. per ton per mile, and that he had no doubt the company made a profit at that price. Freight in considerable quantities can be carried much cheaper per mile on long routes than on short ones, the cost of handling being the same in both cases. Coal has been carried over the Philadelphia and Reading Railway at four mills per ton per mile, this including the cost of hauling the empty cars back to the mines. On the whole we do not think much reliance can be placed upon the "estimate" of our cotemporary.—*Railway Times*.

SALE OF A SOUTHERN RAILROAD.—*Montgomery, Ala.*, Dec. 16.—The Southwest and Northeast Railroad was sold for \$318,000. It was purchased by John Stanton, of Boston, in the interest of the Wills Valley Railroad, of which Ex-Gov. Patton is President.

This is another route through the center of the State of Alabama, that we are assured will be built. Its Northern terminus will be at Chattanooga, which point it will reach, we fear, before our Southern Road is ready to receive its trade.

Iowa, says Gov. Merrill, in a recent description of the progress and resources of that State, has twelve railroads with more than fourteen hundred miles of lines in operation. Within a year three railroads will traverse the whole State from east to west—one being already finished. Other roads in the same direction and several north and south roads are in progress. Telegraph lines accompany the railways, and an independent line following the Mississippi river, has just been constructed across the State.

It is stated that the Hoosac tunnel contract has finally been disposed of, so far as propositions in abstract are concerned. Messrs. Shanly Brothers of Canada, are the successful parties. The terms of securities have been so far modified as to allow the parties contracting to finish the work on the tunnel to the amount of \$500,000 before drawing from the treasury, in lieu of furnishing the like amount in security. The Council are now at work on the details of the contract. Mr. Shanly, senior, is an English engineer of the old school, and not only commands the confidence of his associates, but can command unlimited means to promote the work. The bid of this firm was the third highest of those received by the Council, and the amount is \$4,750,000.

RAILROAD ENTERPRISE.—Fort Wayne, Dec. 28.—The work on the Fort Wayne, Muncie & Cincinnati Railroad is progressing rapidly. The heavy grading and filling will be mostly completed by spring. The contractors of the Grand Rapids road will begin work at this place, this week, and hurry it forward as fast as possible. We have flattering prospects for the completion of these two roads during next summer, and the commencement of the Cincinnati, Richmond & Fort Wayne and Saginaw & Michigan Railroads, which will, when completed, make Fort Wayne one of the principal railroad towns in the State.

SUNDAY RAILROAD WORK.—From letters of the Postmaster General and the Presidents of various railroad companies, it appears that of 124 roads 65 run no passenger or freight trains, while 59 companies run 177 passenger and 42 freight trains. The number of men engaged in Sunday railroad work is estimated at 30,000. The question whether Sunday trains are a source of profit was answered by sixteen companies in the affirmative, and by thirty in the negative, the rest left it unnoticed. Among those giving negative answers were officers of the Boston and Providence, Cleveland, Toledo and Erie, Mobile and Ohio, Pittsburgh, Cincinnati and St. Louis, Minnesota Valley, and Michigan Southern. President Phillips, of the latter Company, is quoted as saying: "We are satisfied that it is for the interest of the company to allow our employees the rest of the Sabbath."

Southern Pacific Railroad.

We have received the following circular, which we suppose has been addressed to all the stockholders of the above named road; we however, give it to our readers, as we are aware that many of them are interested:—

LOUISVILLE, KY., December, 1868.

T. WRIGHTSON:

DEAR SIR:—You are doubtless aware that by the concerted action of certain parties, the Southern Pacific Railroad of Texas, with its property and franchises, was sold out and bought in under a claim of the mortgagees, within the last year, and that the purchasers are now claiming the right of possession and full title of the same, to the exclusion of all the old stockholders of the said road, and to their severe pecuniary loss. They propose now to go further, and to ask of the Congress of the United States such grants and subsidies of lands and cash equivalents as to enable them to build and equip the old Southern Pacific Railroad entire, and to monopolize and retain, to the further selfish exclusion of the old stockholders from all participation in the contemplated benefits and grants, the title, franchises, and property values entire, to the amount of millions to each of said purchasers. Therefore the undersigned, appointed the Central Committee for Kentucky, solicit and urge your co-operation in such action as will prevent such injustice and protect the old stockholders and their interests.

A powerful combination with large resources, has already been formed, and is now actively at work, with its central head in New York City, and extending throughout different States and sections of the United States, for the purposes:

First. Of applying, under an independent organization, to Congress for a charter and grants of franchises and appropriations to build a railroad on the route of the 32d parallel, with a branch road from a point east of El Paso to the Gulf Coast of Texas, at or near Galveston.

Second. To invite the co-operation and aid of the old stockholders, (who may desire to do so,) to join in the new organization, and thus to avail themselves of an opportunity to reimburse their losses.

An immediate response is necessary, as the terms of the new organization may be closed by the 15th of January next. A new organization is preferred:

First. Because legal embarrassments may arise at any future time to hinder and annoy the operations of the old company, from the disputes and litigations which may grow out of the claims of old stockholders and officers.

Second. The present road would not answer for a section of a first class road to the Pacific, and would be nearly useless to a Pacific Road Company. To accept it would be to forfeit that much of a Congressional subsidy which would be much more valuable in building the road anew throughout.

Third. The State will grant to any company which can give assurance of building the road the same donations it offered to the old organization.

For special and detailed information we refer you to ——— of ——— who is heartily in co-operation with us, and who will act as agent for the above named locality.

W. TERRY,
H. BURKHARDT.

THE ISLINGTON RAILWAY, in London, will be about one and a half miles long, and will extend from Islington-green, near the Agricultural Hall, to a city terminus in New Union Street, close to the Moorgate Street Station of the Metropolitan Railway, with one intermediate Station near the Eagle Tavern, City road. The line will be upon viaduct throughout, the arches ranging from twenty to eighty feet in height above the natural ground level.

This is the principle on which the road is now being made in Greenwich street, New York. It is all very nice as a sort of plaything, but this getting up and down stairs to get into a car suspended on arches and pillars is not the thing. Somebody will get hurt some of these days, and then this folly of double decking the earth's surface will terminate.

THE FIRST LOCOMOTIVE ENGINE built in the Lehigh Valley, and in fact in the North-eastern section of Pennsylvania, was the "Nonpareil," built by the Beaver Meadow Railroad and Coal Company, Beaver Meadow, in 1839, under the superintendence of Mr. Hopkin Thomas, master machinist, who now resides at Cata-sauqua.—*Bethlehem Times*, December 12.

Inter-Communication—The Pacific Railroad and the Proposed Darien ship Canal.

The New York *Shipping and Commercial List*, in favorably quoting our brief article on page 345, last volume, on the facilities for international communication, very truthfully says:

Our cotemporary's views, with regard to the relative cost of land and water transportation, are substantially correct. Still, a good many light costly goods, from Japan and China, such as silks, opium, etc., must inevitably come by the Pacific Railroad. But the transportation of tea, in any considerable quantities, over this route, may reasonably be doubted, as, in the opinion of the trade, the length of the carriage by rail would result in so pulverizing the article, as to detract materially from its value. There cannot be the slightest doubt, however, that the traffic between the Eastern and Western portions of the Continent, together with the business which a short route to China is certain to bring, will afford the Pacific Railroad all the business which it can accommodate, to say nothing of an important intermediate commerce, which it must build up. Nothing is more certain than that this great highway will, within a brief period, be instrumental in thickly populating a vast extent of country, stretching away from the Missouri River to the Rocky Mountains, thus rendering necessary a network of railroads similar to that in the Middle and Northern States. East of the Mississippi and Missouri Rivers there was, in 1860, a population of twenty-seven millions: westward there was less than one-thirtieth the population, though double the area. And yet this great area is full of mineral and agricultural wealth; so full, that thirty-five millions of dollars of gold and silver are drawn from it every year, and the rich valleys of the pregnant rivers yield a maximum of agricultural products in return for a minimum of toil. The greatness of the traffic which will come to the great national highway between the Atlantic and Pacific, all contributing to its success and profit, can hardly be over-estimated. That it will be so vast, a few years

hence, as to necessitate one or more through roads may, we think, be taken for granted. But, for our countrymen to control the rich trade of China, India, and Japan, a cheaper and shorter water route is absolutely essential. This want will be supplied, as soon as science shall assure us the projected Darien Canal; the Isthmus being unquestionably the key to commerce between the Atlantic and Pacific Oceans. Since Cortez first viewed the two oceans from an elevation on the Isthmus, this magnificent project has been the dream of philanthropy and of liberal enterprise. The Spaniards, the French and the English have repeatedly, during the last three centuries, sent expeditions to solve the problem. No less than nineteen canal routes, and seven railroad and common road lines, have been contemplated, only one of which—the Panama Railroad, an American enterprise—has been accomplished. This avenue, in connection with the steamship lines, has been a potent element in the development of commerce; but what it has accomplished, cannot be regarded as an accurate index of the success that would be likely to attend the canal. We are pleased to know that this grand project is assuming a shape that will, sooner or later, insure its consummation. The leading merchants and capitalists of the United States have taken it in hand, and with them "there is no such word as fail."—*Scientific American*, Jan'y 1st, 1868.

What it Costs to Go around the World.

Putnam's Monthly for January says the circumnavigation of the earth has become an easy and not a very expensive undertaking. A European journal gives the following estimate, taking Paris as the starting point; we translate the sums into greenbacks:

From	to	First class fare.
Paris	Marseilles	\$21½
Marseilles	Alexandria,	137½
Alexandria	Suez,	20½
Suez	Aden.	266½
Aden	Point de Galle, Ceylon,	200

From Paris to Ceylon, \$550

From Point de Galle the circumnavigator has choice of two routes. The first and most direct is *via* Japan, as follows:

From	to	First class fare.
Point de Galle	Hong Kong,	\$200
Hong Kong	San Francisco,	420
San Francisco, via Panama and St. Nazaire, to Paris		517

Ceylon to Paris, \$1,137

The other, *via* Australia:

From	to	First class fare.
Point de Galle	Sydney,	\$333½
Sydney	Panama,	420
Panama	Paris,	342½
		\$1,096

* The time occupied by the two routes is thus given:

From	to	Days	From	to	Days
Paris	Ceylon,	25	Paris	Ceylon	25
Ceylon	Sydney,	24	Ceylon	H'g K'g	15
Sydney	Paris,	55	Hong Kong	Paris,	64
Total,		104	Total,		104

It is estimated, however, that when the Pacific Railroad is completed, the journey around the earth will be reduced to eighty days, traveling time. Not only the intercourse between China and Japan and Europe, but between Australia and Europe, will then find its speediest route across the American continent.

ALABAMA COTTON VIA SAVANNAH—The Georgia Central Railroad has wrought a revolution in the transportation of the cotton crop of Alabama. It is complete so far as the center of the State goes, and partial in regard to its other sections. We are bringing cotton from the wharves and warehouses of Mobile and Selma, and giving it an outlet at Savannah. Montgomery is sending almost its every bale this way. The whole secret of this is, we are offering superior and more rapid facilities for its transportation than any other route. A shipper can send his cotton over our railroads to New York cheaper and in about one-third the time he can by sending it to sea from Mobile. Sailing vessels, like four-horse stage coaches, have completely played out. The people of to-day have about as much use for them as they do for last year's almanacs. We live in a real age of steam and progress. The Central Railroad has formed complete and close alliances with all the roads leading west from Macon, Georgia, and to Selma and Mobile; and by this arrangement shipments are put through with lightning rapidity. The merchants all along those lines will soon learn to ship their New York purchases exclusively by this route. It is the direct and quickest route for them.—*Macon Telegraph*.

RUSSIAN RAILWAYS.—The Russian railway system is developing with a rapidity and grandeur equaled only by our own. The whole vast empire in Europe, embracing an area of two millions of square miles, and inhabited by sixty millions of people, is being netted over with lines of railway. The principal roads at present in operation are those from Warsaw to St. Petersburg, from St. Petersburg to Moscow, from Moscow to Odessa, on the Black Sea; and from Riga, on the Baltic, to the City of Orel, on the Moscow and Odessa line. There are other short lines connecting Warsaw, St. Petersburg and Moscow with adjacent towns. In addition to these, the following are building or projected: A line connecting Kursk, on the Moscow and Odessa road, with Taganrog, on the Sea of Azov; another connecting Odessa with the Sea of Azov; a third between Moscow and Warsaw direct; a fourth linking Siberia with the heart of Russia—Tiumen being the eastern terminus; a fifth linking Tartary and the new conquests of Central Asia with St. Petersburg, by the way of Orenburg; a sixth from St. Petersburg to Helsingfors, in Finland, and a seventh connecting the decaying port of Archangel, on the White Sea, with the capital. Other smaller and connecting lines are planned. Russian Railway projectors are in the London market soliciting loans, and are meeting with considerable encouragement. The roads already in operation are paying high dividends. The transportation of grain from the inland provinces to the seaports is building up the Russian railway system and making its shares among the most valuable in the world.—*N. Y. World*.

KANSAS PACIFIC R.R.—The National Land Association completed a sale at St. Louis, on the 17th, of 30,000 acres of the company's lands to a colony of Swedes from Northern Illinois. These lands lie in one body on the Saline river, in Lincoln County, north of Ellsworth, and will be occupied in the spring, by 200 families. The National Land Company have sold to actual settlers within the past ninety days sixty thousand acres of their land.

English Elections—Liberal Majority in the Large Boroughs.

The following analysis, says the *London Daily News* of November 21st, of the votes given in 33 of the largest boroughs proves beyond all doubt that the policy of Mr. Gladstone has the hearty approval of the great body of the people. The results given below are obtained by taking the return of the Liberal and the return of the Tory who polled the highest number of votes in each of the boroughs, and subtracting the smaller from the larger:

	Absolute Liberal Majority.
METROPOLIS—10 Boroughs—	
Liberal Majorities.....	44,467
Conservative Majorities.....	1,064
	—43,403
PROVINCES—6 largest Boroughs—	
Liberal Majorities.....	30,214
Conservative Majorities.....	2,631
	—27,583
PROVINCES, 10 next large Boroughs	
Liberal Majorities.....	8,781
Conservative Majorities.....	3,373
	—5,408
	76,394
PROVINCES—7 Boroughs same size. in which the Tories did not show themselves, the first candidates of which polled.....	54,730

Majority Liberal voters in 33 largest constituencies..... 131,124

RESULT OF THE ELECTIONS IN THE LARGEST TOWNS.

The following table shows the results of the elections in the largest constituencies of England and Scotland, and refutes the statement put forward by the Conservative press, that the "great constituencies" have pronounced in favor of Ministers:

	No. of Electors.	Lib.	Con.
Glasgow.....	47,500	3	..
Manchester.....	45,000	2	1
Birmingham.....	42,306	3	..
Hackney.....	40,613	2	..
Liverpool.....	36,538	1	2
Marylebone.....	35,575	2	..
Leeds.....	35,460	2	1
Lambeth.....	33,373	2	..
Tower Hamlets.....	32,000	2	..
Finsbury.....	31,759	2	..
Sheffield.....	29,955	2	..
Bristol.....	21,153	2	..
Edinburgh.....	20,779	2	..
Bradford.....	20,571	2	..
Westminster.....	18,879	1	1
London.....	18,136	3	1
Southwark.....	17,701	2	..
Chelsea.....	17,400	2	..
Wolverhampton.....	16,080	2	..
Wednesbury.....	15,612	1	..
Greenwich.....	15,588	2	..
Salford.....	14,859	..	2
Dundee.....	14,798	2	..
Merthyr Tydvil.....	14,477	2	..
Hull.....	13,046	2	..
Oldham.....	13,000	2	..
Nottingham.....	12,999	..	2
Bolton.....	12,650	..	2
Norwich.....	12,000	1	1
Sunderland.....	11,464	2	..
Total.....		53	13

DENVER PACIFIC R. R.—At the Annual Meeting of the stockholders, Dec. 14th, the following gentlemen were elected Directors:

John Evans, W. M. Clayton, J. W. Smith, F. W. Cram, D. H. Moffat, Jr., John Pierce, J. E. Bates, A. B. Daniels, F. Z. Salomon.

The following officers were elected: President, John Evans; Vice-President, John Pierce; Secretary and Auditor, R. R. McCormack; Chief Engineer, F. M. Case; Consulting Engineer, John Pierce; Financial Committee, Messrs. Clayton, Salomon and Bates.

EMIGRANTS FROM GERMANY—The Berlin correspondent of the New York Herald writes: "Considering all the chances operating against the prosperity of a German, bad government, density of population, low price of labor and grievances innumerable, it is but natural that the tide of emigration should continually flow; indeed, we hear from Mecklenburg that as many as 650 people took their departure for America in one single day. Extra trains were in requisition to forward so great a number. This was but two days ago, and on previous days similar numbers left the country. A perfect emigration fever exists at the present moment in Pomerania, and very many of the inhabitants wait with anxiety to have tidings of those of their friends and relatives who have expatriated themselves, not for their country's, but for their own good. Here in Berlin the movement is less perceptible, but that there is a vast undercurrent could be proved at once by reference to the books of the various emigration agents. The weekly statistical register published by the police shows for the autumn months an unusual excess of departures over arrivals, and we may justly assume that this is, in a great measure, owing to emigration to your side of the Atlantic."

Receipts of the Western Union Railroad Company for the week ending December 14:

	1868.	1867.	Inc.	Dec.
Freight.....	\$6,506 43	\$7,257 88	.....	\$744 45
Passengers.....	2,932 55	3,004 55	.....	52 00
Express and Tel.	350 00	576 00	.....	226 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$10,163 98	\$11,200 43	.....	\$1,036 45

Receipts from January 1, to December 14:

1867.....	745,572 64
1868.....	\$746,569 91
Decrease.....	\$5,002 93

—The Missouri River, Fort Scott and Gulf Railroad Company have purchased of the West Kansas Land Company, forty acres, in Kansas City, to be used for depot purposes.

—It is now proposed to make an effort to build the Kansas City and Santa Fe Railroad as far as Emporia, to which place (about seventy miles) the road is to run by way of Olathe, Gardner and Ottawa. The Ft. Scott road from Kansas City to Olathe is already built, and it is now proposed to submit to the citizens of Johnson County, Kansas, (in which county Olathe is situated) a proposition to vote \$100,000 in bonds in aid of the Santa Fe Road.

—The Hastings and Dakota Railroad is now completed to Farmington, on the Minnesota Central Railroad, and passengers and freight trains connect with this road for St. Paul, Milwaukee and Chicago.

—The idea of the Central Pacific railroad coming straight through the mountains from Salt Lake City to Denver, meeting here the Smoky Hill and thus giving the temperate zone of North America—two through routes from the Pacific to the Missouri, is not a new one. At least it has been a favorite one with us for two or three years, and we have often broached it. We do not despair of seeing it realized one day, as it is feasible and would be to the interest of all parties concerned. The route would undoubtedly be the direct one between the two points, traced by Gen. Hughes in 1865. It would be easier than any other short of turning the mountains on the southward entirely, and that wouldn't answer the purpose of all. Such a consummation would place Denver on the world's highway, at the entrance gate of the Rocky Mountains, the door posts of which are "the cloud compelling" pillars of Hercules, Long's and Pike's Peaks. Such and similar in her glorious destiny at all events.—*Rocky Mountain News.*



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Viewed as a whole, we are confident that no other living language has a dictionary which so fully and faithfully sets forth its present condition as this last edition of Webster does of our written and spoken English tongue.—*Harper's Magazine.*

The work is a marvelous specimen of learning, taste, and thorough labor. We praise it heartily, because we believe it deserves the heartiest praise.—*N. Y. Albion.*

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This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-end package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms.

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms: and also with working plans, if desired.

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J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
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IT IS AN EFFICIENT

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wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Day Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6:15am.....	7:10pm
" Dayton.....	8:35 ".....	9:30 "
Arrive West Salem.....	1:50pm.....	4:53am
" Leavittsburg.....	4:55 ".....	7:35 "
" Meadville.....	7:35 ".....	11:10 "
" Susquehanna.....	7:48am.....	11:29pm
" Paterson.....	2:25pm.....	6:03am
" New York.....	3:15 ".....	7:00 "
" Boston.....	5:45am.....	4:45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours, for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

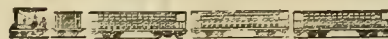
Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at northeast corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 12:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 120 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front the East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 4:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:49 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

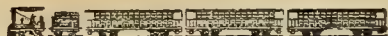
2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7:00 A. M.	9:10 A. M.
Springfield & St. Joseph Ex.....	12:00 P. M.	4:30 P. M.
St. Louis & Chicago Ex.....	4:55 P. M.	12:15 A. M.

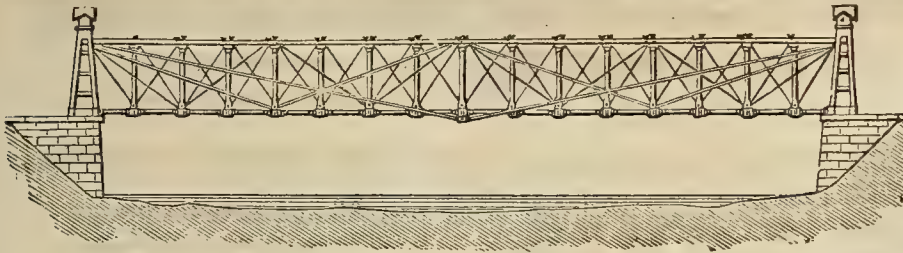
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5:15 P. M.	5:05 A. M.
Harrison Accommodation.....	10:10 A. M.	2:25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD, General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN. MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in *efficiency, economy and durability* they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Sheet Iron and Boiler Work, and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

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W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
330 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to suit the latest for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vin Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE, General Superintendent.**Best Route to St. Louis and Chicago**

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy, Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.30 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.0 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.50 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.**MOSELEY'S WROUGHT IRON ARCH****BRIDGES,**

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.**EDWIN J. HORNER,**

Successor to

McDANIEL & HORNER.

**Locomotive and Railroad****CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn**JOHN A. WRIGHT, Sup't.**

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.**PASCAL IRON WORKS.**

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.**Wrought Iron Welded Tubes**—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.**Wrought Iron Galvanized Tubes**—strong and durable, designed especially for Water purposes.**Cast Iron Gas or Water Pipe**—1½ to 24 inches in diameter, and branches for same, &c., &c.
Gas Works Castings, etc., etc.**PHILADELPHIA.**

STEPHEN MORRIS,

THOS. T. TASKER, JR.,

CHAS. WHEELER

S. P. M. TASKER

HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore**RAILROAD!****FOUR PASSENGER TRAINS DAILY****TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY**
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)**SUNDAY TRAINS**—Leave Philadelphia for Baltimore and Washington at 4.15 A. M. and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON.

Editors

CINCINNATI:

THURSDAY, JANUARY 7, 1869.

THE RAILROAD RECORD,

PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.

OFFICE—No. 167 Walnut Street.

SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ “ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ “ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express.....	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	2:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Indianapolis, Rushville and Cincinnati Mail.....	7:00 A. M.	10:45 A. M.
St. Louis Express.....	2:30 P. M.	5:10 P. M.
New Castle and Cambridge, City, 7:00 A. M.		10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Shall there be Railroad Monopolies?

In our article a short time since, on the Pacific roads, we stated that if the Northern and Southern Pacific roads were not made, it would result in making the Union Pacific the greatest monopoly of the age. If any one looks at the matter seriously, he will see that distinctly. We have seen recently in the newspapers some exceedingly shallow remarks on the business of the Union Pacific. It is said it wouldn't pay expenses, and the Government would have to buy it! This is very silly. It is well known that when the road had reached Cheyenne, it had secured the Government the interest on its advances, and the road was increasing in business at every step. It is said again, that its business is wholly local, and its through business will be small. We think this one of the greatest errors we ever knew. In the first place, suppose its business is *local*, will not that make it the most profitable road in the world? In one of our late articles, we showed what all persons must see on a moment's thought, that through such vast, wild regions of country in the great central valley, the *line of advance*, the extension of population will only be on the *line of railroads which penetrate it*. This every one must see, what is the consequence now? Town after town is built up the valley of the Platte, which would not have existed for ten years without the road. At first these towns are planted by railroad men, then the traders and settlers come in and the country on the road settles up; branches are established on the sides of the road, people come in and farm, and business extends. Now, observe that every pound of freight, every animal, and every person which moves at all, must go over that road. Now just consider this, on such a road, towns settling up on every ten miles for 2,000 miles. Divide the distance in two to establish the center, and we have 1,000 (say 900 miles,) on which the local business must go. Now divide this again to get an average, and we actually have 450 miles as the average of what we call *local* business; but which is not local in fact, because it exceeds the whole distance of the largest road. The valley of the Platte is nearly 500 miles, and the whole business of the road must go to Omaha. Thus we see without proceeding to further examples, that the *local* business, if we call it such, of the Union Pacific must be immense.

But is this all? Look at the immense business done between the Pacific and Atlantic, by way of Panama, and see how rapidly the passengers are already increasing on this overland route, between the two ends of the Central and the Union Pacific. Passengers can now come in ten days, and they are coming in numbers. And is it all imaginal about that coming tide of business from the other side of the Pacific? So far from it, that the intelligent press of Europe are already look-

ing with anxiety and wonder to the great change about to be wrought in the European-Asiatic trade by the American Pacific road. They are right. There will be an immense change. Now the point to which we direct the readers attention is, that the Union Pacific, however good and valuable in itself, must of a necessity, become a vast and uncontrollable monopoly, unless the Government constructs the Northern if not the Southern road. The distance from Lake Superior to Puget's Sound is the shortest distance by which an overland road can be made in the United States, connecting the great oceans, and the Southern Pacific is the only one which can carry the South-Atlantic-Pacific trade at all. Hence, we perceive at once, that for the Government to stop where it is now will be to have done a good thing indeed, but to have made that good thing an enormous railroad monopoly.

In our opinion this would be not only a great evil, but a great injustice. This would not only be avoided, but three times the extent of territory cultivated, by making the Northern and Southern routes also. We are not now arguing the road question, but endeavoring to show what must result from a Government monopoly; or, rather, not a Government monopoly, but a monopoly of a vast commercial company. This is one of the very things dreaded and argued against by the framer of the Constitution. The Government was, by implication, left without the power to do this; but, certainly, if they create a single company, with power to control the whole commerce between the Atlantic and Pacific, they create a more gigantic monopoly than was ever contemplated by those who made the Constitution. It is well to look at this a moment. Let us see the indications of the times. As things are now going we are likely to have the whole country covered with gigantic railroad monopolies. In stating this and commenting on it, we mean nothing of censure towards these companies. We mean only to illustrate one of the tendencies of the times. Take some examples: The Pennsylvania Central first purchased the canals and public works of the State. Then it bought the branches connected with it; then the Sunbury and Erie road; then it purchased, recently, the Fort Wayne road to Chicago. Thus, this enormous corporation is controlling every route between the City of Philadelphia and the West. We do not believe in this policy. It may be the best, but we are illustrating the tendency towards railroad monopoly. Next, take the example of the Hudson River road. Mr. Vanderbilt and his friends bought the Harlem road, a rival of the Hudson. The rivalry, or competition, was thus destroyed. Then this joint interest bought enough in the New York Central to control that, and then a close connection was made with the whole Lake Shore Line, and recently this monopoly has attempted to con-

trol the Erie. Failing in this, the Erie has commenced a monopoly—bought the Atlantic and Great Western, and it is said controls, or will control, the Ohio and Mississippi. Going to the South we find the Baltimore and Ohio Railroad buying the Marietta road, and, we believe, in close connection with the Indianapolis road, which, again, has bought a line to Chicago. Thus we see that all minor lines and all competitions are being rapidly swallowed up in great monopolies. And now it is proposed that the Government shall aid in this, and, having secured one line to the Pacific, keep that line in the hands of one company without competitors, controlling the whole Pacific trade with the Interior. It seems to us that the Government is the only power which can check this spirit of monopoly, and, instead of aiding it, we should complete the Northern and Southern Pacific roads, and never suffer them to come into the hands of one company. It is only by the Government keeping control of this whole subject, that we can hope to avoid the most gigantic monopolies which the world has ever seen. The idea that twenty or thirty millions advanced on the first mortgages of the Pacific roads, will affect our debt or economy injuriously, is one of the most short-sighted ideas we have heard of. If any thing can help us out of debt and provide prompt means of payment, it is the improvement of the country, by which the basis of taxation will be extended by increasing the wealth of the country. We must not stop progress by false economy, but extend the progress of the country in every direction. It is only by bold and liberal measures that we can extricate the country from its financial difficulties.

In the Right Direction.

Mr. Price introduced a bill compelling all railroads accepting grants of land from the United States, or from any State, to use only American iron, under penalty that such grants be null and void. Referred to the Pacific Railroad Committee.

American labor should be encouraged by every possible means under the control of the government; and certainly this way of developing our resources is not only perfectly legitimate, but our bounden duty. With the most extensive iron beds in the world, more coal than all the world combined, with labor equally skilled, we can see no reason why American iron should not be exclusively used, especially on all "land grant" roads. True, nothing but the best iron should be used, and a reasonable price for its manufacture will always secure it; provided, the President, or Superintendent, or some of the "leading directors" does not "own the mill," or receive a "per cent." on their purchases. In that case, the probabilities are that the interests of stockholders and the lives of passengers will be risked to make up the "per cents."

The Spread of Empire.

How to Do It and How not to Do It.

Extract from a Letter from Jos. Medill, of Chicago, to Gen. Rawlins.

I esteem the acquisition of British North America as almost equal in value to the seceded States, which we conquered. We need that country for its vast forests, its wheat and barley lands, its fisheries, its furs. New England needs Nova Scotia for its coal. The West needs the St. Lawrence for its natural outlet to the Atlantic Ocean. The Saskatchewan Valley will in the future be a great wheat growing region. The Northern Pacific Railway from the head of Lake Superior, *via* St. Paul, will run close along the boundary line for more than 2,000 miles, to Oregon. We don't want a naval power, supported by a foreign nation, established on our Northern frontier. By the doctrine of "nationalities" and natural frontiers, that country should be ours, and some day will be. The people are of the same race, religion, language, literature, and have the same form of government almost, and use our system of weights and measures and decimal currency. By acquiring the "Dominion" we get rid of a line of custom-houses and break up smuggling, which robs our Treasury of millions of revenue per annum, and we settle the vexed fishery question forever. But I need not enumerate the benefits and advantages to accrue therefrom, as you have studied the same perhaps more thoroughly than I have, and are ready to ask me the question: How are we to get the Dominion? I answer: Take it. How did Prussia enlarge her area one-third and her population 11,000,000? How did Piedmont become master of Italy? How did France get Savoy and Nice? How did Great Britain obtain the Dominion from France, and how did she acquire the Indian Empire?

Great Britain has wronged us, inflicted terrible harm on us, tried to destroy our Union, and almost did destroy our foreign shipping. She has made no apology or reparation. Reverdy Johnson has disgraced us and proved himself an old flunkey and a disgusting snob. General Grant, 100 days hence, will be President. He has a party of tremendous strength to support him. The reconstruction question was settled by his election. Very little remains to be done. The Democracy are going to abandon the issues they have fought us on for four years. He has an opportunity to immortalize his administration, and place his fame high above all Presidents who have preceded him. Let him say to Great Britain, "We will give you a receipt in full for all damages and injuries and \$100,000,000, and take your North American Colonies, which are of no use to you, but would be valuable to us." If England refuses, then take possession of the territory, and in the treaty of peace she will be glad to accept the hundred millions. She can't hold the Canadas ninety days against General Grant. Sound the bugle, and enough of the old veterans will rally in a month to sweep the Dominion as fast as they can march over it. The campaign would be as sharp and decisive as that of Prussia against Austria, which added one third of Germany to Prussia. The Irish element would flock to the support of Grant *en masse*, and all the ex-rebel soldiers he could accept would be glad to fight under his standard, and thus would be restored an era of

reconciliation with the South. Lee and Longstreet, and Hood and Johnson, and Taylor, Hampton and Beauregard, would jump at the opportunity to don the "blue" and fight under the old flag. Just let the General say the word and the people will rally to his support as one man for the acquisition of the Dominion.

This is certainly the "short route" to results, whether it would prove economical or not is not so clearly demonstrated. Mr. MEDILL is one of the editors of the Chicago *Tribune*, and Chicago is a city where they do, or propose to do, things on an entirely different scale to the ordinary methods. In Chicago the "Alexandrian" style of untying knots is always adopted, even by the children with their shoe strings. As other people would have to pay for it, and Chicago would, without doubt, receive more benefit from it than any other city, hence, what's the odds? Crack your whip and go ahead, Gen. GRANT, or any other man.

But, seriously, if Mr. MEDILL is in earnest as to the necessity of the acquisition of territory on our Northern border, is there not a better way than to embroil us in a war of conquest, even if the chances are in our favor? The Fenians would take the Dominion of Canada for us, and be glad of the chance to give it to us, if we would only let them. Then why should Gen. GRANT destroy his fair fame and sacrifice the honor of the American nation, by turning "freebooter" and stealing the property of another nation? The morality of the transaction would not be much changed, it is true, even by receiving it as a gift from the Fenians, as the receiver of stolen goods, knowing them to be such, is not much better than the thief. But do we want the Dominion at all? This is a question that seriously admits of a difference of opinion. If it was the Hudson's Bay Company's lands only, with but little population, no government debt, and no complications and diversity of interest, perhaps it would be different. Indeed, this is the only portion, with free navigation of the St. Lawrence, that Chicago is interested in.

This would include the great Saskatchewan and Red River country, and all north of our boundary line and west of Lake Superior. This portion of the continent is at present of but little value to Great Britain, whereas it can be made of immense value to us. It would become ours by the judicious construction of lines of railroad on our present Northern border, extending from the lakes to Puget's Sound. The country would soon attract emigration from the United States, and when settled by a people having our institutions and a love of the old flag, it would "drop into our hands like ripe fruit." We should avoid the risks and cost of a war—we should not incur a debt of \$100,000,000 as proposed—we should not render ourselves liable for the present debt of the Dominion, which is about \$100,000,000 more—we should not incur the

odium of having followed the vile examples of other nations, as quoted by Mr. MEDILL, in acting the freebooter—and yet accomplish the same result, get all that we really want without any of the objectionable portion of the aforesaid Dominion, and Chicago, above all other cities on the continent, would be benefited. Hence, we say push forward the column and construct the Northern Pacific Railroad. As to the rest—when the people of the Dominion have become sufficiently homogeneous with those of the United States, and their interest more closely identified, they would naturally ask to be relieved of the burthen of the "Mother Country," and become a part of the "Universal Yankee Nation," without MEDILL's proposed cost or odium.

Protection for the Treasury.

Mr. Washburne of Illinois, by unanimous consent, offered the following resolution; which was read, considered and agreed to:

Resolved, That the President be requested to transmit to this House the report of the special commissioners to examine into the character of the work on the Union Pacific railroad, and to inform the House what attempts, if any, have been made on the part of said railroad company to obtain money from the Government for building said road without having constructed the same in conformity to existing law; and also to further inform the House the amount of bonds issued to said railroad company, and if a sufficient amount has been retained in the hands of the Government to guaranty its completion as a first-class road, in further accordance with the existing law.—*Cong. Globe, Dec. 16.*

The above shows a healthy intent on the part of Congress to protect the public treasury from the fearful onslaught of cormorants, who are attacking the vitals of the nation, and sucking its very life blood. We do not, however, regard either the action of Congress or the public sentiment, that is at present constraining that action, as indicative of *hostility* to progress or development. Not at all. What Congress wants and the People will sustain, is *security for the public treasure jeopardized*. Or, in other words, the FIRST MORTGAGE on the roads made with their money, with a sufficient investment on the part of those who build them, to prevent their abandoning the works after completion. Our country can not afford to stop progress, even although some sacrifice has to be made to continue the advance; but the people do require integrity and some security, that will be at least equivalent to that required for the "cork" when you loan a "cracked bottle."

The Michigan *State Republican*, in commenting on our article advocating the first mortgage, says:

"We have full confidence that Senator Howard, the chairman of the Senate Pacific Railroad Committee, will fully investigate the matter, and that the rights of the people will be protected. This magnificent steal of nearly \$18,000,000, is ahead of anything attempted

by Swartout or others in the days of Van Buren. The people will hold their Senators and Representatives to a strict account in this as well as in other matters, calling for the expenditure of money. They await their action, which shall demonstrate the truth or falsity of the charge of swindling made by the Secretary of the Interior."

Frightened! at his own Shadow!

GREAT CRY AND LITTLE WOOL.

Mr. Doolittle presented the memorial of William Cornell Jewett, praying Congress to withhold all subsidy in United States bonds, money or lands from the Pacific Railroad Company until the present road is made complete and safe by proper bridges and necessary work, and until the company shall give ample security not to abandon the road to the Government on finding it a failure, &c.; which was referred to the Committee on the Pacific Railroad.—*Cong. Globe, Dec. 15.*

We do not learn from the above what amount of the first mortgage bonds "Colorado Jewett" represented, for which he desired protection by Congress. It is the second mortgage bond holder that needs protection, not the first, as they would certainly have a "soft thing" of it, if they should have to take the road. Let Congress look out for the interests of the People, and so secure itself that it will not be for the interest of the "constructing ring" to sell out the "road and franchises" unto the first mortgage bond holders, and sink the entire second mortgage debt. The danger is, that when there is no more money to be made in *construction*, that the company (not from necessity, for we believe that the Pacific road will pay) will run down the stock and bonds, and after proper manipulation, endeavor to make a "clean thing" of the whole. Mr. Vanderbilt and one or two others could easily arrange it. This "outrery" of first mortgage bond holders is very much like that reported of the old maid when the British captured Baltimore, and whose anxiety was fully expressed by her exclamation of "God bless us! O, I wonder *when* the ravishing is to begin!"

FLOWERS.—Next to the creation of Woman, we think the Great Architect of the Universe "done his best" in the creation of the beautiful flowers. The man who can not appreciate flowers we should deem unfit for human society, and a long way short of being ready for Heaven. We are led to say this much from having received a copy of "Vick's Illustrated Catalogue and Floral Guide for 1869." It is the best gotten up, and most perfect book of the kind that is issued; and our "better half" says that it is worth any amount of money, to a "good florist," and much more to a novice, as a "guide" in the selection and arrangement of varieties.

Outlets for the North-west.

The following letter of F. C. CAPREOL, President of the Huron and Ontario Ship Canal Company, together with the description of the work, extracted from the report of the company, gives a very full and interesting account of this long contemplated and magnificent work. The idea of connecting Lake Huron with Lake Ontario, by ship canal, is not new, but, on account of its magnitude, has hitherto not yet been able to command the capital necessary for its construction. The rapid growth of the great North-west, and the construction of the Pacific railroads centering on Lake Michigan, and the anticipated commerce of Asia, passing over our continent, has again awakened a lively interest in this stupendous work, and we trust it will receive that attention from Parliament as will secure its completion:

HURON AND ONTARIO SHIP CANAL CO., }
TORONTO, December 5, 1868. }

SIR: I have the honor to request your consideration of the following important facts, bearing upon the subject of the land grant asked for by the petitions to the Legislature of Ontario, now in session, in aid of the Huron and Ontario Canal.

The Parliament of Canada, in 1856, passed an Act, 19-20 *Vic. Cap.* 118, incorporating the Toronto and Georgian Bay Canal Company. Clause No. 16 of that Act plainly shows that a grant of land, to enable the Company to carry into effect the objects of its charter, was contemplated. It provides that "The said company may hold all such lands, hereditaments and tenements as may at any time be granted to them by Her Majesty the Queen, Her heirs or successors, in furtherance of the objects contemplated by this Act, or by any person or persons, body or bodies corporate or politic."

A committee of the House reported on the 9th June, 1857, that,

"Aside from the importance of the carrying trade of the North-western States of the Union, which your committee believe will of itself fully justify the construction of the work in question, there are other and, in our view, more patriotic considerations favoring immediate and energetic action upon this subject. It is hardly necessary to say that your committee now allude to the extensive tract of country lying to the northwest of Lakes Huron and Superior, as well as to that portion of our patrimony hitherto held by the Hudson Bay Company. This extensive country, rich in mineral and agricultural wealth, will, by the opening of the Georgian Bay Canal, be at once far more than doubled in value. In this view of the subject, your committee respectfully submit, will be found considerations fully justifying the most liberal effort on the part of the Government and your Honorable House, for the construction of this work."

"Should the system of granting public lands in aid of public works of a national character be continued, your committee respectfully submit that no work yet projected in Canada, has equal claims with the Toronto and Georgian Bay Canal, to a liberal grant."

Application for an amendment of the said Act was made in 1864, when a committee of the House reported (after quoting the above

clauses), "agreeing with these views, your committee consider that the construction of such a canal is expedient, on national and provincial grounds. To the Province this project is scarcely less than vital. Its geographical position points out Canada as the possessor of the first commercial advantages which are to be found in the interior of the American continent. Your committee having a regard to the importance and magnitude of this work, venture to indulge the hope that a grant of land commensurate with the greatness of the undertaking, will be made to the Toronto and Georgian Bay Canal Company, incorporated in 1856, as one of the best means of securing the construction of the work; your committee being persuaded that without some munificent inducement of this description, it were useless to seek the co-operation of capitalists of the parent country, on whom the Province must mainly rely for the practical execution of the enterprise."

In 1865, the Act 29 Vic. Cap. 78, was passed, entitled "An Act to amend the Act incorporating the Georgian Bay Canal Company." The preamble to this Act sets forth,

"And whereas, the accomplishment of the object contemplated by the company is of the utmost importance to the commercial and general interests of this Province at large," &c.

The recognition, by Parliament, in terms so forcible, of the necessity and value of this public work; the clause in the original charter inserted expressly to enable the company to hold lands granted by the Crown, and the repeated favorable reports of Parliamentary committees, left no doubts on the minds of the Provisional Directors that, if the capital could be obtained, there could be no question about the land.

With this conviction the Provisional Directors, at great expense in time, money and labor, examined, by boring the ridge of high land, to be excavated; made surveys, plans and profiles of the line of the proposed canal and drawings of the various works required throughout, with general specifications of the same and an estimate of cost. Much pains, trouble and expense were also incurred in obtaining reliable statistics bearing on the sources of traffic and other necessary information to enable capitalists to appreciate the commercial merits of the project, all of which are set forth in the fullest detail, in the very able report of Mr. Sykes, the company's resident engineer.

I then visited the principal cities of the United States for the purpose of submitting the undertaking to men of means and enterprising character, and ultimately succeeded in effecting an agreement with certain prominent capitalists there (nine in number) who undertook to provide one-half of the necessary capital, or \$20,000,000, on the conditions that a grant of ten millions of acres of land should be obtained, and the remainder of the capital raised in England or elsewhere. The high standing and respectability of these men were satisfactorily ascertained through the agents of the Bank of British North America in New York.

With this agreement as a basis, and armed with full authority from the Board of Provisional Directors, I then proceeded to England in August, 1867, accompanied by Mr. Sykes, the company's engineer. The result of my residence there for nearly twelve months, was the establishment of the project in the favor of a large circle of prominent and influential men and a large portion of the British press and public. The scheme

was, after the most patient and careful examination of the model, maps, plans, drawings, report, and other data, submitted to them at numerous meetings, spread over months of time, fully endorsed in its engineering features by the first engineers in England, Mr. John Hawkshaw and Mr. A. M. Rendal, who not only accepted the appointment of consulting engineers to the company, but also highly complimented Mr. Sykes for the able manner in which the merits of so stupendous a work had been placed before them. My next step was to obtain an introduction to and interview with Mr. George Wythes, the wealthiest and most prominent contractor in England—my negotiations with whom resulted in a written agreement with him, on the basis of the American one, that provided the land grant were obtained he would undertake the remaining half of the contract. I also have obtained and delivered to the Board of Directors the strongest assurances of several financial firms of the highest standing in London that, in the present state of the English money market, the whole of the capital stock would, if necessary, be readily subscribed, provided the land grant were obtained. The merits of the project, as an investment, were most carefully examined, and the various data submitted are now open and accessible to all, at the offices of the company, and can not, I believe, fail to satisfy every one who will bring an intelligent mind to bear upon their careful consideration.

Throughout my negotiations I made it a point to approach only first-class men, and to impress them with the conviction, which was clear in my own mind, that provided the capital could be obtained the land would certainly be forthcoming, without which a large public work of this character in Canada could not, after past experience, have commanded any attention.

The success of this great undertaking is entirely dependent on the grant of land, and it is for the Government and Legislature of Ontario to consider whether they will be faithful to their trusts and to the true interests of the people if they neglect the golden opportunity now presented for securing the expenditure of \$40,000,000 on this most important public work and the permanent addition of that large amount to the working capital of this Province.

I hope that you will do me the favor to give to this plain statement of facts the consideration which it deserves, and I have the honor to be, sir, your most obedient servant,
F. C. CAPREOL, President.

DESCRIPTION OF THE CANAL.

This canal, its route, engineering features, and works throughout, may be briefly described as follows:

It will connect Lake Ontario (234 feet above the sea,) with Lake Huron (574 feet above the sea,) and have Lake Simcoe, (704 feet above the sea,) situated midway between them, for its summit level and feeder. The distance between its Southern terminus, in Humber Bay, of Lake Ontario, and its Northern terminus in Georgian Bay of Lake Huron is 100 miles, of which 24 miles are deep water navigation through Lake Simcoe, and 16 miles slack water navigation, in the Northern extremity of the Nottawasaga river to its mouth in Georgian Bay; so that there will be only 60 miles of canal proper, of which 30 miles will be summit level, and only 30 miles interrupted by lockage. The canal will, therefore, be in two divisions—one South of Lake Simcoe 47 miles in length, and the other North of

Lake Simcoe, and (including the Nottawasaga river,) 29 miles in length. The Southern division will commence in the Humber Bay, at a point about 25 chains west of the mouth of the Humber river, where it is proposed to make three lift locks in the solid ground, elevating the canal 45 feet and carrying it, by means of a stone aqueduct, over the Lake Shore road, Great Western railway and side road. From the Northern extremity of this aqueduct, the canal will be continued, through the solid ground, to the village of Lambton, a distance of three miles, where it will join the river and receive its water supply. Following the valley of the Humber river for about three miles farther, to Weston, it will there intersect the Grand Trunk railway, which is carried over the valley of the Humber by a viaduct about 60 feet above the water level. There the canal will be brought, by the necessary excavation in the bed of the stream, underneath the railway, at a level to afford 100 feet clear headway for the passage of masts of vessels; its elevation to the natural level being effected, after passing beneath the viaduct, by three lift locks.

From Lambton the canal will follow the valley of the Humber river and its Eastern branch, to the boundary line between the townships of Vaughan and King; in which distance of 21 miles, an ascent of 470 feet to the summit level will have been effected by means of 31 locks, of an average lift of 15 feet 2 inches. At this point the largest feature of the work will be encountered. The highlands of the township of King there continue to rise until they attain a height of 186 feet above the level of Lake Simcoe, (the summit,) and then decline to that level, within a distance of nine miles. The average depth of the necessary cut through this ridge is about 80 feet, and the total excavation is computed at 36,000,000 cubic yards. It has been satisfactorily ascertained, by test-pits and boring, that the nucleus of this elevated ground consists of indurated clay and gravel, very similar to the exposed cliffs on Yonge street, near York Mills, which appear to be a portion of the same geological formation; and that the upper or surface portion is clay, gravel and sand of a friable nature. Notwithstanding the admitted formidable nature and magnitude of this cutting, it is confidently believed that there is no insuperable obstacle in the way of its accomplishment, in a permanent and satisfactory manner. Through the entire length of this cutting, there will be massive continuous piers, formed of bowlders, and concrete, and faced with close piling, secured to back stay piles, on both sides, to protect the foot of the slope.

This cut will bring the canal to its connection with the Holland river, the course of which it will follow, through an extended flat, known as the Holland Marsh, for fourteen miles, to its mouth on Lake Simcoe. Passing through Lake Simcoe and out of it at Kemperfeldt Bay, another cut or excavation will be necessary, averaging about fifty feet for five miles, to reach the Nottawasaga river, the course of which will be followed to within three miles of its mouth in Nottawasaga Bay, where, in order to save an extensive bend in the river, there will be a cut of about forty feet deep for about a mile and a half, through a sand hill with clay bottom. This last cut will bring it to its northern terminus.

On the northern division of 29 miles, there is a descent of 130 feet, effected by eleven locks, of which six will have an average fall of 15 feet, and five of 8 feet. The only extraordinary work on this portion of the route

bonds which have been delivered are three hundred and ninety-one, which at ninety cents on the dollar amounts to \$351,900. There will be the railway and road crossings over the Holland river near Bradford, where the unsatisfactory character of the ground calls for special structures, to secure sufficient foundations for iron swing bridges.

The total lockage on the canal will be 600 feet, and the number of locks 42. The width of the canal will be 100 feet at the water surface and 80 feet in the bottom, and its depth 13 feet, except where these dimensions are necessarily exceeded by the width of the valleys and channels of the rivers through which it will pass, and through the deep excavation, where its width will be 80 feet, both at the surface and bottom, with vertical piers on both sides.

All the locks will be detached, to prevent the loss of time and consequent diminution of practical capacity for traffic, which would attend the grouping of locks together, in combination.

The locks, sluices, and swing bridges will be operated by hydraulic power, except at the summit level, where steam power will be used. The works, throughout the line, will mainly consist of:

A stone aqueduct, to carry the canal over the Great Western railway and two public roads.

Modification of the Weston viaduct to allow the passage of the canal under the Grand Trunk railway.

About 10,000,000 cubic yards dredging in the rivers.

About 50,000,000 cubic yards excavation.

16 miles retaining piers on both sides of deep excavation.

60 miles of other slope protections.

42 locks complete, 250x35 feet, with 13 feet on the sills.

25 miles iron hydraulic main, for operating lock gates, sluices and swinging bridges.

4 special fixed bridges over the deep excavation.

4 special railway bridges.

24 iron swing bridges, for ordinary road crossings.

Entrance harbors at each terminus.

Dams, waste-weirs, offlets, culverts and inlets.

Crib protections in Lake Simcoe.

Offices, workshops, store-houses, lock and bridge keepers' houses.

145 miles of towing path.

About 140 miles permanent fencing.

The time required for passing through the canal is computed at 42 hours, thus:

24 miles lake navigation, at 8 miles per hour

52½ miles river and canal, long reaches, 3

3½ miles per hour..... 15

20 miles river and canal, short reaches,

2 miles per hour..... 10

3½ miles, 42 locks, at 20 minutes each, 14

Total..... 42

This rate of speed applies to steam propelled vessels. Sailing vessels to attain to it, must be towed. Steam tugs will be specially provided for towage through the long reaches and the hydraulic power for operating the lock gates, sluices and swing bridges will be available for the short warping ponds.

The estimated cost of all the works is \$36,000,000, to which must be added the interest on expenditure during the construction, which, together, will absorb the authorized capital of \$40,000,000.

ST. LAWRENCE CANALS.

The probable cost of the reconstruction of the St. Lawrence canals, and the necessary improvement of the channel of the river and lakes St. Francis and St. Louis, are estimated at \$5,000,000, viz.:

Reconstruction of canals..... \$3,500,000
Improvement of the navigation of
the river and lakes..... 1,500,000

Total..... \$5,000,000

The outlay of this sum must be met by an increase of revenue equal to the following items:

Present net revenue, say..... \$50,000
Increased expense of maintenance
and management..... 50,000
Interest at 7 per cent. on new expenditure of \$5,000,000 350,000

Total \$450,000

The tonnage relied on, for the Huron and Ontario canal, at its outlet, is 5,275,000 tons; and, allowing that one-half of this may be destined for Oswego or other U. S. ports, there would remain 2,637,500 tons to pass through the St. Lawrence canals, which at 20 cents per ton, would yield a revenue of \$527,500, and quite sufficient to warrant the expenditure.

Comparative Cost of Transportation by Water and Rail.

The St. Louis Democrat of Friday, says: In the spring of 1866 the barge line went into operation in St. Louis. Up to this time the steamboat interest has been the prevailing one, and they opposed the barge enterprise with much industry. The Board of Underwriters united in opposition, and refused for a long time to insure produce shipped upon barges for as low a premium as that charged for insuring goods shipped upon steamboats. But the manifest injustice of this course became at length so glaringly apparent that it was abandoned, and now both modes of conveyance are treated alike. But this is not sufficient, for it has been demonstrated by two years' experience that the risk on barges is fully a half less than upon steamboats; indeed, we believe we should be justified in stating it even stronger, and say three-fifths less. To make the grain movement down the river a success, it must have the benefit of every economy really belonging to it, and if a less rate of insurance upon the contents of a barge be one of the economies, then by all means let it have the benefit of it. We sincerely hope, however, that the introduction of iron barges is close at hand, and with their advent the necessity of insurance will cease, thus putting the river on an exact footing with the railroad in the matter of insurance.

It will be pertinent here to make some simple comparisons to show how effectually the river route proposes to compete with the rail route for the grain raised in the vast area we have mentioned. First let us state what a single tow of barges can carry from here to New Orleans, and what it costs to carry it there. The superintendent of the Barge Line assures us that their largest towboat can take eight barges to New Orleans of 1,200 tons capacity. That would be exactly thirty thousand bushels of wheat, 2,000 barrels of flour in each, or 240,000 bushels of wheat and 24,000 barrels of flour at a single trip. This would require one towboat costing say \$30,000 and eight barges costing say \$8,000 each,

making the entire capital \$94,000. A force of about 11 men would be needed. Now a railway freight car carries 100 barrels of flour or 350 bushels of wheat. Therefore to transport the contents of this single tow, would require 685 cars for the shipment of the wheat, and 240 more for the flour, or 925 cars altogether. Fifteen cars make a pretty long train for a single locomotive to pull, but suppose we even put 25 cars into a train, we would then have 37 trains, each bearing an engineer, a fireman and say 4 brakemen, or say 222 men. For every 100 miles of road run over, the locomotive of each freight train must be changed, and the engineer and fireman are changed also. Now, the distance from here to New Orleans is 1,100 miles, hence our number of locomotives must be multiplied by eleven to arrive at the amount of capital expended in power to move a tow of produce the same distance by land as we propose to do by water. We now have, therefore, 407 locomotives. A first-class freight locomotive and tender, powerful enough to draw 25 freight cars, costs \$20,000, and the cars themselves cost \$1,200 to \$1,500 each. Now let us make a couple of little tables as follows:

Power and capacity required to move 240,000 bushels of wheat and 24,000 barrels of flour 1,100 miles by river.

	Cost.
One towboat.....	\$30,000
Eight barges.....	64,000
Men needed—20 at \$2 per day for say 5 days.....	200

Total \$94,200

Power and capacity required to move 240,000 bushels of wheat and 24,000 barrels of flour 1,100 miles by railroad.

407 locomotives at \$20,000.....	\$8,140,000
925 freight cars at 1,200.....	1,110,000
814 engineers and firemen at \$2 per day, 5 days.....	8,640
740 brakemen at \$1 per day for one day.....	740

Total..... \$9,259,380

As to the amount of fuel consumed we have said nothing, but every one possessing the least common sense will see at once that 37 locomotives, burning fuel for five days, will burn more wood than a single towboat can possibly do in the same length of time. Every one interested in the shipment of freight will understand that we have placed the time taken to transfer the amount of produce given 1,100 miles over a line of railroad at the minimum figure. Ten days would be nearer the mark. The speed of railroads is frequently offered as a reason for using them in preference to the river, but old shippers who have tried both routes know better. It will be seen, therefore, that in the end, when the fields of the vast area we have mentioned above begin to be developed, and hundreds of millions of bushels of produce seek Eastern consumers (which will surely be the case ere twenty years have passed), when the country has again reached a specie basis, and grain is only worth from 20 to 50 cents for corn, and 50 to 70 cents for wheat, the great outward flow must be down the great navigable rivers of the valley. It will be the mission of railroads to start from either bank of these great rivers and thoroughly traverse every portion of the arable, habitable domain of the valley, carrying goods to the people, and bring their produce to the river by the car loads, there to be massed in elevators and warehouses, and

transferred in vast cargoes into barges. Suppose instead of making the distance from here to New Orleans, the basis of our statement, we had made the distance from Fort Benton to St. Louis (3,112 miles) the basis. A single towboat will bring down a fleet of barges with the same certainty that would attend their transfer to New Orleans. The up-trip would be made with cargoes of goods, railroad iron, &c., on board, and the return trip with grain. If it requires 370 locomotives to make the trip of 1,000 miles (407 for 1,100) it would require 1,116 to make the trip from Fort Benton to Chicago by rail, and three times the men, three times the money, &c., that is required for 1,000 miles.

The number of brakemen on one train we have computed at 4, as there are 37 trains there would be 143 men needed; presuming that a brakeman is relieved once in 24 hours and the time required to make the trip is put at 5 days, we multiply 148 men by 5, giving 740 men for one day.

Navigation on the Mississippi.

The Dubuque Times of Friday says:

The fall which brought on the close of navigation this season was not so genial as that of its predecessor, although it afforded one seven days later; nor was the boating stage of water during '68 as good as '67. The season opened with a lower stage of water than is usual—the spring flood not beginning to reach its average flow. Low water may be said to have held sway up to August, when the river began to mend and continued swelling till it closed on a greater fall rise than is within the recollection of old river men.

The ferryboat made her first trip in '68, on the 10th day of March, at 6 o'clock in the evening, twelve days earlier than in '67, and the first arrival at our port was nineteen days earlier than the earliest arrival of '67. In 1867 the Savannah came in on the 8th of April, while on the 20th of March of this year the nose of the Davenport, from St. Louis, touched our levee.

The last arrival of this year was on the 10th of December, the honor belonging to the Jennie Baldwin, which arrived from Winona and departed for the same point the same day.

From the arrival of the first steamer to the departure of the last shows the interval of navigation for '68 to have been 266 days, 27 more than '67.

The arrivals of the past year were more than during any previous year of which we have any record, and the presumption is that the arrivals back of our date were smaller rather than larger. The number was 1,150 against 852 last year, indicating that the business of the river was proportionately increased. Forty-one steamers were engaged in the trade of our port last season, with an aggregate tonnage of 16,000 tons, and comprising the boats of the Northern Line, Northwestern Union Line, People's Line and the Red Line.

The wharfrage collected at our port this year amounted to \$7,013 07.

The following table shows the number of arrivals for the past ten years, as far back as we have any reliable data.

ARRIVALS.

1859.....	927	1864.....	553
1860.....	761	1865.....	704
1861.....	721	1866.....	924
1862.....	625	1867.....	852
1863.....	640	1868.....	1,150

In this connection it is well to reproduce data condensed and rearranged, showing the opening and close and duration of the seasons of navigation for the past twenty-eight years. The average of seasons will enable the fastidious to reach the omissions of the first eight years:

Arrival first boat.	Dep. last boat.	Length of season.
1840 March 7.....	No data.....	No data.
1841 " 18.....	"	"
1842 " 9.....	"	"
1843 April 15.....	"	"
1844 March 6.....	"	"
1845 " 1.....	"	"
1846 " 11.....	"	"
1847 " 30.....	"	"
1848 " 28.....	"	"
1849 " 15.....	Nov. 22.....	252 days.
1850 " 12.....	" 20.....	254 "
1851 " 27.....	" 22.....	241 "
1852 " 12.....	" 12.....	246 "
1853 " 19.....	" 24.....	251 "
1854 " 16.....	" 25.....	255 "
1855 " 24.....	" 20.....	242 "
1856 April 2.....	" 30.....	243 "
1857 " 1.....	" 28.....	242 "
1858 March 15.....	" 30.....	268 "
1859 " 8.....	" 29.....	266 "
1860 " 11.....	" 24.....	261 "
1861 " 12.....	" 27.....	260 "
1862 " 30.....	" 28.....	243 "
1863 " 14.....	" 29.....	262 "
1864 " 6.....	" 20.....	259 "
1865 " 24.....	" 30.....	251 "
1866 April 4.....	" 24.....	234 "
1867 " 8.....	Dec. 6.....	274 "
1868 March 20.....	" 10.....	266 "

St. Paul and Buffalo via Lake Superior.

The Buffalo Commercial publishes an interesting and truthful statement of the comparative cost, routes and means of transportation from the wheat fields of Minnesota and Northern Wisconsin to the Atlantic. It will be seen that via Lake Superior is by far the easiest and cheapest route.

The connection of the Upper Mississippi river with the Atlantic is now attracting considerable attention, through the discussions of the daily journals, both East and West. But these discussions have been recently confined to the three water lines, viz: the water line via the Mississippi river and the Gulf of Mexico; the water line via the Mississippi, Ohio and James rivers, and the Kanawha canal connecting the two latter; and the water line via the Mississippi, Fox and Wisconsin rivers to Green Bay, and thence by the lakes, canal and rivers to the Eastern seaboard. These are denominated the Southern or Gulf route, via New Orleans; the Central route to Norfolk; and the Northern route, via the lakes to New York. The distance and cost of transportation by each route from St. Paul to Liverpool, based upon reliable estimates by competent engineers, are as follows, viz.:

Water routes.	Distance Miles.	Cost per ton, 2,000 lbs.	Cost, Wheat per bush.
Gulf route.....	7,185	\$13 96	41 8-10 cts.
Central route.....	5,140	13 35	39 cts.
Northern route....	4,830	11 55	34 6-10 cts.

The Northern water route above mentioned, is by the Mississippi from St. Paul to Prairie du Chien, 250 miles, from thence by the Fox and Wisconsin river improvement to Green Bay, 200 miles, thence by lake to Buffalo, 800 miles, thence by Hudson river to New York, 150 miles, and thence to Liverpool, 3,020

miles, total distance from St. Paul to Liverpool 4,830 miles. The more practical and cheaper from St. Paul to Liverpool is by rail from St. Paul to the head of Lake Superior, 150 miles, thence by lake to Buffalo, 1,055 miles, thence by Erie canal, Hudson river and ocean to Liverpool; the entire distance between the two places aggregating 4,725 miles.

The cost of transportation from St. Paul to Liverpool via Lake Superior, will be \$11 01½ per ton of 2,000 lbs., equal to 33 cents per bushel of wheat.

* * * * *

The article goes on to show that with lines of large class of screw steamers on the lakes plying between Superior City and Buffalo, and a still further enlarged Erie canal with nominal tools, the transportation of wheat to Liverpool from the Upper Mississippi need not exceed 30 cents per bushel.

The article closed by stating the progress and prospects for the speedy completion of the St. Paul and Superior and St. Croix and Lake Superior railways; that the latter road is controlled by Azariah Boody, Esq., in the interest of the New York Central railroad, and that he and his associates are preparing to go on and complete it at an early day. It tells Buffalo capitalists that a good opportunity will be afforded them to make paying investments in elevators at Superior City "as well as in lines of screw steamers on the lakes, to run between Buffalo and the Lake Superior terminus of these two roads." These railways in connection with the lakes, the Erie canal and the Hudson river, are destined to make the most expeditious and cheapest route for transportation between the regions of the Upper Mississippi and the seaboard.—Superior Gazette.

Pittsburg and Connellsville Railroad Company.

The sixteenth annual meeting of the stockholders of the Pittsburg and Connellsville Railroad Company was held this morning at the office of the company, at Grant and Water streets.

The meeting was called to order at eleven o'clock, and was organized by calling James S. Croft, Esq., to the chair, and appointing John H. Page, Esq., as Secretary.

W. O. Hughart, Esq., having stated the object of the meeting, presented on the part of the Board of Directors the sixteenth annual report to the stockholders, with the usual accompanying tables and statements, comprising the reports of the Treasurer, Superintendent, Master of Machinery and Auditor. We make the following abstract of the report:

The report opened by congratulating the stockholders upon the restoration of the franchise of the company, and gives a detailed statement of the legal proceedings to which the company had been subjected. It also refers to the aid which had been extended to the road by the councils of Baltimore, and by the Baltimore and Ohio Railroad, and then refers to the financial measures adopted to secure the early completion of the road. The report then states that early in June last, the Board deemed it advisable to resume operations at Sand Patch tunnel, and that all the more difficult portions of the work have been let to first-class contractors upon such terms as will result in saving to the company nearly \$254,000, compared to the prices demanded in 1864.

The number of the new first mortgage

have been expended for engineering \$3,839 45; miscellaneous \$300; Sand Patch tunnel \$5,-299 50; making a total of \$3,438 95, leaving \$342,461 05, which is placed in the hands of the Baltimore and Ohio Company, and for which six per cent. interest is being received. The report then refers to the increasing value of the bonds, and then states that the earnings of the completed road for the past year will reach nearly two-thirds of the interest upon the entire mortgage.

The earnings and expenditures for the past year are as follows:

GROSS EARNINGS.

From passage.....	\$163,456 48
From freights.....	337,681 19
From mails.....	3,650 00
From miscellaneous sources.....	3,898 25

Total.....\$508,625 92

EXPENSES.

Conducting transportation.....	\$ 80,113 16
Repairs of motive power.....	104,950 34
Maintenance of cars.....	26,363 75
Maintenance of road.....	100,275 01
General expenses.....	15,858 29

Total.....\$327,560 55

Leaving the net earnings.....\$181,065 37

The total number of passengers carried all distances was 422,739 against 411,116 the previous year. The amount earned therefrom was \$163,456 68, a slight decrease. The freight transported all distances has been 398,402 tons against 374,965 the previous year. The increase of revenue therefrom over previous year was about six per cent. The report then refers to the character of the freight transported over the road, and it is claimed that it is demonstrated that the road is more beneficial to the city than any other coming into it. The gross revenue has been carried as follows: Main Division \$350,784 19; Turtle Creek Division \$128,909 48; Fayette County road \$28,932 27. The earnings per mile run by trains have been 142-100 cents, which is about the same as last year.

The cost of conducting transportation has been \$80,113 16-100 or 22 33-100 cents per mile run by trains, which is 1 57-100 less than last year. The cost of maintenance of road-bed, bridges and trestles has been \$100,275 against \$107,654 last year. The cost per mile run by trains is 27 cents, being four per cent less than last year. The report then states the work of replacing trestling with embankment is steadily progressing, that at Four Mile Run being nearly completed. One thousand and eleven tons of new iron and 41,365 cross-ties have been put down, and it is stated that this expenditure must continue during the coming year. The report refers to the purchase of Everson, Preston & Co.'s mill property, and the removal of the track so as to be free from all danger by the future fall of rocks. The cost of maintenance and working of the road has been \$327,660 55 against \$325,208 25 the previous year, being 87 45-100 cents per mile run, against 95 70-100 cents last year.

The number of miles run by passenger and freight trains was 338,738, and by construction trains 15,810, making a total of 374,548. The number of passengers carried an average distance of 10 6-10 miles was 422,739, which is equivalent to 68,049 over the whole road; of the former number 253,484 were carried eastward, and 168,245 westward. The freight transportation aggregated 398,502 tons of two thousand pounds—32,834 passing eastward, 365,569 westward. The average distance was 31 6-10 miles.

No harm—not the slightest—has happened any passenger during the year.

The floating debt at the close of the last fiscal year was \$71,862 87, making the proper deductions for assets and counter claims its real amount was estimated at \$36,995 79. This year its amount is nominally the same, but omitting interest due the city of Baltimore and upon stock, we have available assets to pay the whole amount.

The report then gives a detailed statement of the manner in which the net revenue has been disposed of approximately.

One new locomotive has been purchased, and six box and four dump cars, for repair work, have also been purchased. At least two more engines and a considerable number of freight cars are imperatively needed.

Thirty eight miles of the line between Connellsville and Cumberland have been put under contract, including all the heavy work upon the line. The contractors are already at work, and within two years the entire line will be completed to Cumberland.

The report of B. H. Latrobe, Esq., Chief Engineer to the President, detailing operations of the Engineer Department during the year, was then read, after which the report of G. L. B. Fetterman, Chairman of the Auditing Committee, submitted their report of their examination of the company's books and papers.

On motion the reports were received and accepted, and five hundred copies were ordered to be printed.

An act of the Legislature of Pennsylvania, approved April 1, 1868, empowering the Pittsburgh and Connellsville Railroad Company to construct branches from its main line, was submitted to the stockholders by President Hughart, and on motion it was accepted.

No other business having been offered, the meeting went into the election of a Board of Directors to serve during the ensuing year. G. W. Herbert, Esq., was appointed judge, and Messrs. E. W. McClure and Charles Donnelly, appointed tellers.

A communication from his Honor, Mayor Banks, of Baltimore, nominating Messrs. James Hodges, W. H. Perkins and Hazeltine G. Vickney, as directors to be chosen on the part of the city of Baltimore, was presented and received.

The election was then held, when the following gentlemen were declared duly elected for the ensuing year: Messrs. Wm. Ogden Hughart, G. L. B. Fetterman, John Fleming, William Phillips, Wm. Baldwin, of Pittsburg, Jos. Pennock, of Philadelphia, Cyrus Meyers, of Somerset, Benjamin Deford, John Hopkins, James Hodges, Wm. H. Perkins, Hazeltine G. Vickney, of Baltimore. The meeting then adjourned.—*Pitts. Chron. Dec. 8.*

A letter received in San Francisco, from Durango, says: Gens. Ortega and Patozi, the latter recently assassinated, had in their possession, so their friends affirm, documents showing that the sales of Chihuahua and Sinaloa had been sold to the United States, and would be occupied by American forces inside of two years. The report was fully credited at Durango.

THE RAILROAD BUSINESS.—*Memphis*, January 6.—The City Council, this afternoon, refused, with one dissenting vote, to ratify the sale, by Mayor Leftwich, of the stock owned by the city in the Little Rock Railroad, to W. B. Greenleaf, who it is alleged represents a ring formed by the lessees of the Mississippi Central.

Grand River Valley Railroad.

The Company having this enterprise in charge, is steadily progressing with the work of constructing, as we learn from the Chief Engineer, A. K. Nash, Esq., who made us a short call at our sanctum a few days since.

The officers in charge of the business of constructing and operating the road are: Amos Root, Esq., President; Eugene Pringle, Esq., Secretary; P. B. Loomis, Esq., Treasurer; A. K. Nash, Esq., Chief Engineer; Col. R. H. G. Minty, Esq., Superintendent.

The cars run regularly from Jackson to Charlotte, and the iron rail is laid to a point within three miles of Vermontville on the Thornapple river, in the western side of Eaton county. The distance from Jackson to Charlotte is 35 miles, and from Charlotte to Vermontville 12 miles, and it is 14 miles from Vermontville to Hastings, the "county-seat" of Barry County. The road-bed is nearly completed to Hastings. The bridge over Thornapple river, which is upward of 500 feet in length, is also nearly completed. This part of the line will soon be in readiness for the tracklayers. Like the most of Michigan roads, the road-bed of this line is constructed by local aid—mostly township and county bonds.

We understand that the company's general mortgage bonds are indorsed by the M. C. R. Co., from the avails of the sales of which the rails and rolling stock are purchased. From the foregoing facts it is pretty certain that within a year or two this road will reach Grand Rapids. Its construction will materially interfere with the former calculations of Kalamazoo. But it is to be hoped that the Kalamazoo, Allegan and G. R. R. road will reach Grand Rapids at least a year ahead of the Grand River Valley. Such an event will secure to this point its share of the immense traffic to be found at Grand Rapids.—*Kalamazoo Gazette.*

THE SOUTHERN PACIFIC RAILROAD.—It is well known that the Union and Central Pacific railway will not traverse the richest portion of our territory, the roads projected to the north and the south of it passing through regions with which it can not compare for native wealth and fertility. The Northern Pacific will be constructed from Lake Superior to the ocean. The rich timber, mineral and farming lands it will open have no general outlet now on either side. Yet, with all the disadvantages of inaccessibility, they yield one third of the entire bullion produced in the United States, or twenty-one millions of dollars. This road will open to commerce a tier of future States on the north, whose demands and supplies make themselves directly felt in competing with Russia for the trade of the North Pacific on the Asiatic shore.

The Southern road will do more to awaken the enterprise and apply the industry of the South than any other scheme of the time. It will invite that section to an immediate participation in the benefits of a restored Union. It will develop the Indian Territory, which extends 320 miles by 220—a region one-ninth larger than all New England, one-third larger than New York, and one-fourth larger than Illinois, and one of the richest, most beautiful, and best endowed tracts in the whole Union. Every kind of valuable timber is to be found within its limits; salt springs that are invaluable; coal fields whose richness is illimitable; stock-grazing facilities not to be measured; besides a natural capacity for every product from cotton to Indian corn. The Southern road will likewise pass through the great beef

and wool grazing regions of Northwestern Texas and New Mexico. The hidden wealth of Arizona will be opened by it. Some of the most valuable lands of California will find it an outlet for their productions. It will pass through the best watered, best timbered and best grassed regions of any which are crossed by either of the three trans-continental lines. It will cross the American Desert at its narrowest point, and open along its entire length a wide belt of country that is gifted with the finest of climates and the richest agricultural, manufacturing and mining resources.—*Boston Post, 5th.*

GREAT RAILROAD SUIT.—The suit of the Covington and Lexington Railroad Company (representing the stockholders) against the administrators of R. B. Bowler, deceased, and the present holders of the road, is progressing in the Kenton Circuit Court. The old Board of Directors, as the petition charges, confederated together, in violation of their obligation as Directors to carry on the road for the benefit of the stockholders, involved it in difficulties, frightened the bondholders by issuing a circular saying that, unless they would advance \$800,000, to be expended in putting the road in running order, they must stop paying interest; and, in general, the condition of the road was deplorable. Having in this manner, sufficiently frightened the bondholders, they went out and bought up the bonds of the road, and, when the Eastern creditors came to investigate for themselves, the road seemed to be worse than had been represented. The Directors could do nothing. They saw no way but for the law to take its course, which alternative was accepted by the mortgagees, and suit brought by them in the Fayette Circuit Court. The road was sold, and R. B. Bowler, one of the Directors, bought it at about half its value, leaving part of the bonded debt unpaid, and all the stock destroyed.

Bowler then sold small interests to some half dozen persons. The present suit was instituted on the idea that Bowler, being a Director, and having been mainly instrumental in bringing about the sacrifice of the road, should be declared a trustee, and holding the road for the benefit of the stockholders. Bowler died, and now the account is represented against his administrator and other holders. The case will come up for argument to-day, upon the demurrer to the petition and demurrer to the answer. The attorneys for the plaintiff or stockholders, are Judge Stanley Matthews and Major Peter Zinn, of Cincinnati, and Jno. F. Fisk, of Covington; for the present owners, Harvey Myers, M. M. Benton and Carlisle & O'Hara; for the non-resident claimants, Charles H. Fisk.—*Com.*

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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NO. FORMS.		NO. FORMS.	
1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

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REFERENCES.

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J. M. RIDENOUR, Pres't, C.&I.J.R.R. College Cor., Ind.
J. M. LUNT, Sup't, C.&I.C.R.R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C.H.&D.R.R., Cincinnati,
J. H. WELLER, Ass't Sup't, D.&M.R.R., Dayton, O.
D. McLAREN, Gen'l Sup't, A.&G.W.R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C.&I.J.R.R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I.C. R.R., Indianapolis
Aug. 2, 1886.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.

WITH THE

STEAM SYPHON WATER-STATION

A locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Day Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

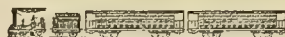
CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G.W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	4,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE
CHECKS,

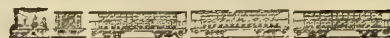
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a.m. and 18:00 p.m. On Sundays, one Express Train
at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p.m., Pittsburg 12:10

9:00 a.m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 p.m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p.m. Without change of cars from
New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN from the West, leaving
Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.;
Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at
7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Read-
ing at 10:52 a.m.; Allentown at 12:12 p.m.; Easton at
1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton
at 1:35 p.m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Read-
ing at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at
7:20 p.m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M.
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M.
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

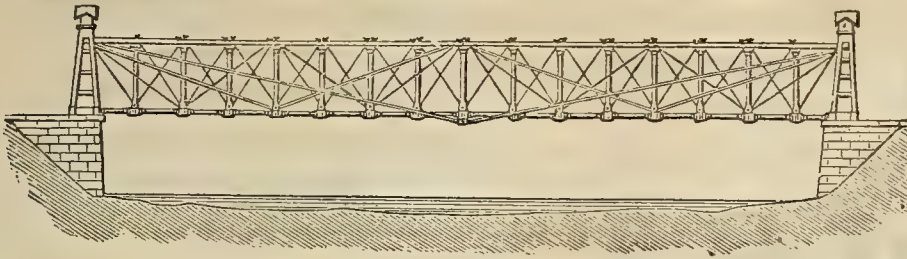
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House-
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the pri-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent

F. B. LORD Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three, or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and railroad work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty-six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enable us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

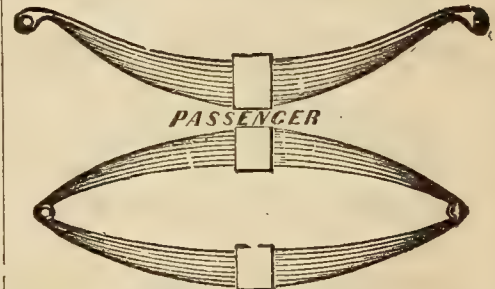
MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

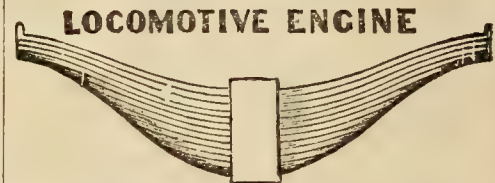
121 West Front Street, Cincinnati.
330 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE

THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to suit the customer for the best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight. All Springs tested to double their usual load.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner, on the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,**PHILADELPHIA,****NEW YORK, and****BOSTON,**

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 P. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.**Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cinc'ti,	6 10 a.m.	11 30 p.m.	12 00 p.m.

For tickets, or information apply at Offices, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7:00 am	10:50 pm
Indianapolis and Cairo Express.....	7:50 am	2:30 am
Cairo and St. Louis Express.....	2:20 pm	4:08 pm
Springfield, Quincy and St. Joseph Express.....	2:20 pm	4:08 pm
Chicago Lightning Express.....	7:15 pm	11:30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8:50 pm	6:15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10:10 am	8:35 am
Cornersville and Cambridge City.....	4:00 pm	9:15 am
Lawrenceburg.....	4:45 pm	2:20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PRINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continued to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4:15 (Express Monday excepted), 8:15 A. M.; 11:45 A. M. (Express); 2:30 P. M.; 11:30 P. M. night.

On Sundays, 4:30 A. M.; 11:30 P. M.
Leave Baltimore for North and West, 7:35 A. M.; 9:20 A. M. (Express); 1:10 P. M. (Express); 6:35 P. M.; 8:3 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4:15 A. M., and 11:00 P. M. Leave at Baltimore for Philadelphia at 8:25 P. M.
Leave Philadelphia for Wilmington at 11:30 P. M. Leave Wilmington for Philadelphia at 8:30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, JANUARY 14, 1869.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 75 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	2:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.
Baltimore and Washington City
Express and Hillsboro Mail..... 7:30 A. M. 5:00 P. M.
Baltimore and Washington City
Night Express..... 12:35 A. M. 5:50 A. M.
Marietta and Parkersburg Mail..... 7:30 A. M. 5:00 P. M.
Jackson and Portsmouth Mail..... 7:30 A. M. 5:00 P. M.
Hillsboro and Chillicothe Accommodation..... 3:55 P. M. 10:00 A. M.
Loveland Accommodation..... 5:40 P. M. 7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:50 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Indianapolis, Rushville and Connersville Mail.....	7:00 A. M.	10:45 A. M.
St. Louis Express	2:30 P. M.	5:10 P. M.
New Castle and Cambridge City, Express.....	7:00 A. M.	10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.
Chicago and St. Louis Express..... 7:00 A. M. 8:30 A. M.
Springfield & St. Joe Express..... 1:45 P. M. 4:40 P. M.
St. Louis & Chicago Express..... 7:00 P. M. 12:45 A. M.
Lawrenceburg & Harrison Accommodation..... 5:10 P. M. 8:10 A. M.
Harrison Accommodation..... 10:10 A. M. 2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Marietta.....	7:00 A. M.	4:10 P. M.
Oakbrook Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

Pacific Railroads.

No More Government Bonds for Construction.

The Treasury Protected and the Resources of the Country Developed.

"DEAD WOOD" ON CORRUPTION.

The reported corruption and excesses connected with the construction of the Pacific Railroads, has so aroused the feelings of the great mass of the American people, as to give a decided expression of their views, through the newspaper press, against any further subsidies for the construction of railroads, or any other public improvement, or apparent necessity. The natural tendency of all popular movements in public measures is to extremes—from "Hosannas" to "crucify him, crucify him." We do not propose, at the present time, to enquire into the justice or injustice of the present popular "outcry" against the Pacific Railroads; but will take it for granted that "where there is so much smoke there must be some fire." It can not all be fiction. That much opposition to further subsidies to other roads is created, either directly or indirectly, by the gigantic power and influence of the Union Pacific, the managers of which are desirous of securing an enormous monopoly, forcing the entire commerce of the Pacific, and the trade of our vast interior mineral region to pass over their line, no matter at what cost or sacrifice, we have no doubt. The moves and counter moves on the great commercial chess-board of our country, between the supposed rival interests of Pacific Railroads—the Central against the Northern and Southern—is as active and as bitter as ever was the contest between the "four trunk lines." Still, this is not the reason for the present popular opposition to further Congressional subsidies. It is the either real or fancied corruption connected with the work already done, and the danger of depletion to which the Public Treasury is exposed, whenever it may become the interest of the managers to dishonor their bonds.

It was distinctly announced last winter, by leading members of Congress, that they were "not now willing to issue more bonds to any railroads, unless there is a clear right, under existing laws, to demand these bonds;" this position has been fully sustained by the People, and the present Congress will not, in its expiring moments, take the responsibility of adopting any measures of magnitude for improvements that will seriously increase the

public debt. This we regard as certain, unless other security than a second lien is given for the people's money.

The result will be as we now see it, a suspension of work and terminus on the Plains of the Southern or Kansas road, and nothing, whatever, done on the Northern Pacific. Progress stopped, stock still, mired and unable to move. This is, of course, reactionary and radical, and will not long be tolerated by the progressive spirit of the American people. The great question then is, how can we secure

PROTECTION TO THE TREASURY AND YET DEVELOPE THE RESOURCES OF THE COUNTRY.

We think this is fairly and clearly answered by the proposition of Mr. Ramsey, of the House of Representatives, submitted to the House during the last session of this Congress, and commented upon in our issue of January 13, 1868, viz:

"To aid in the construction of a railroad from the western extremity of Lake Superior to Puget's Sound, the United States, in addition to the grant of land heretofore made, will guarantee dividends of five per cent. upon the stock of the Northern Pacific Railroad Company. *Provided*, That the amount of stock guaranteed, as aforesaid, shall not exceed \$20,000 per mile, and Congress shall regulate the securities for advances on account thereof."

Now Congress can even do better than this, and the People will sustain them in their action; for as we have ever contended, the People are in favor of the construction of railroads through the Public Domain, and are willing to contribute, fairly, towards their construction. We have ever held that three roads were a necessity, and that if any of them could be dispensed with, it was the one that is now so nearly finished; it being the most impracticable of any. We still believe that we are correct, and indeed experience has fully demonstrated it; and the country would endorse any reasonable measures that would secure their construction, without jeopardizing the Public Treasury to such an enormous extent as the immediate friends of those enterprises desire.—Hence we suggest that the proposition of Mr. Ramsey, furnishes the remedy. Nay, we aver that the People would sustain Congress in doing better. Hence we propose that Congress shall provide for the construction of say 2,000 miles (the surveyed route we believe is 1,700) between Lake Superior and Puget's Sound by the guaranteeing of the interest on either bonds or stock to the amount of \$25,000 per mile, at six per cent., or on a gross sum not to exceed \$50,000,000, making a total liability of only \$3,000,000 per annum for interest, upon the completion of the road, the bonds or stock itself *not* to be guaranteed by the Government; that to be the basis of property in the road. A like amount would be amply sufficient to meet the real necessi-

ties of the South, and would fully develop an enlightened system of continental railways that would *save* the Government annually more money for transportation than the entire sum jeopardized. That the guarantee of the Government should continue for the interest on the stock or bonds of the Company so long only as will be necessary for the road to acquire a business that will be self-sustaining. Although, who can doubt but that the Government transportation alone, *at one half the cost at present paid for it*, will be more than ample to indemnify the Government for the whole sum that would be thus at risk, viz: \$6,000,000 per annum, besides an equal amount would be saved to the Treasury.

CAN THE ROADS BE CONSTRUCTED WITH SUCH A SUBSIDY?

We believe they can, with the aid of a judicious system of "Land Grant Bonds," redeemable only in payment for lands, and bearing five per cent. interest, payable annually out of the earnings of the Company.—This Land Grant system should be a Congressional trust, the trustee or trustees to be named by Congress, and reposed in judicious and experienced hands in whom the Nation would have full confidence. No one will doubt but that Mr. JOHN L. WILSON, at the head of such a trust, could command almost any amount of capital needed for the completion of the great works.

"DEAD WOOD" ON CORRUPTION.

This we think would, to use a provincial phrase, get the "dead wood" on the corruptionists. To illustrate, we will give the origin of the words "dead wood," as it is a Westernism, and is not so generally comprehended by parties living in the East. It is well known that our Western rivers rise, during floods, to a great height above their ordinary level, and that the drift or "dead wood" is often left, by the receding stream, on the banks. The story is "that an eagle was fishing on the banks of one of our Western rivers for his morning meal, when he espied an eel, which he immediately seized and swallowed. But a moment after, in moving around on the bank, he observed a thing *wriggling around* in the sand, and, after eyeing the 'critter,' he is supposed to have said, 'I thought that I had swallowed you, but will try it again.' The second attempt had a like result. But the third time the "noble emblem of our Nationality" was determined not to be cheated out of his breakfast; hence, seizing the reptile in his mouth, he squat himself flatly down on a drift log, or 'dead wood,' and said, 'there now, wriggle if you can.' If the corruptionists can arrange to rob the Treasury, under the above plan, we confess that at present we "can't see it," and think that by it Congress will effectually secure the "dead wood" on them.

Is Liberality or Churlishness the Best Policy of the Government.

Our newspaper press, at least most of it, reminds us just now of a pack of dogs on a moonlight night. One barks and they all bark. They hear the echo and bark again. They look at the moon, and bay the moon. Not one of them seems to know what he is barking at, but each follows the other till nothing comes of it, and they go back to their kennels, much exercised in lungs and as wise as before. This they do, because it is their nature; but reasonable, enlightened men should use their reason and their common sense. We say this, because there is just now a cry, in a few newspapers, on two subjects which are very little understood, and which is uttered very like that of the dogs at the moon, because they see the subjects before them without comprehending them. One of them is "specie payments," upon which we shall say nothing, because it is discussed in the newspapers till the people are tired with it. The other is that of "economy"—retrenchment, which every body understands to be necessary and desirable, but the value of which will depend wholly upon the mode of doing it; for, if we cut down some things we shall cut down the sources of revenue; and do much more mischief than good. Some merchants, and even banks in this country, have saved themselves from absolute ruin by the extension of credit, when it seemed impossible. This principle may very well be applied, in some cases, to the measures of a National Government. For example: the Government has extended aid very largely to the Union Pacific Railroad, which road is a necessity, but which gives aid to only one-tenth part of the public domain of the country. Aid—not gift—is asked for two other lines, one on the North and the other on the South. The aid asked is simply the exchange of Government bonds for the first mortgage bonds of the road, to the amount of \$25,000 per mile. The *Cincinnati Gazette* said, recently, that the companies would probably not accept this reasonable aid; but this is precisely what the companies ask for, and it is certainly reasonable. Let us look into the practical effect. The companies must make and complete, each, twenty miles before they receive even this aid. The amount of it is, then, that the Government exchanges its own bonds for the first mortgage bonds of the company, so far as the road is completed and no farther. Now, it seems to us, that if the roads be begun on the east side—say at the end of Lake Superior on one side, and the western end of the Kansas road for the Southern—that the road thus made must be worth \$25,000 per mile, and then the first mortgage bonds of the company will be an equivalent for the bonds of the company advanced. When over 100

miles are completed, the bonds will certainly be worth their face. Now, it may be asked, why then ask for the Government bonds? For the obvious reason that the Government bonds are always marketable at their face, and at present at a premium, while the bonds of a new road are not. It is a temporary aid, to complete the Northern and Southern Pacific roads, which are absolutely necessary to prevent a gigantic monopoly in the Union Pacific. We pass all this by, for we do not want now to discuss it in detail. What we ask here, (having made this explanation) whether the liberality of the Government which aids, in this mode, the Northern and Southern roads to become competitors with the Union Pacific and develop entirely new regions of country, is not wiser—is not, in fact, more economical than the so-called economy which would withhold it? That is the real question. We agree entirely with all those who are asking for economy in the administration of the Government. Economy ought to reign in all departments; but, what is economy? Many a man has built an addition to his house, or made new fences, when he had to borrow the money to do it with, and yet it proved an economical expenditure, for it put his premises in a condition to be sold advantageously. Now, we say this is the exact case in regard to aiding the Pacific roads. The line of immigration has been pushed as far west as it can be, unaided by railroads, and railroads can not be made through an uninhabited country without Government aid. The aid given to the Union Pacific road in 1862 is proof of how little sense there is in objecting to the loan of Government bonds, because we are in debt. In the most dangerous period of the war, when the Government was issuing its obligations on every side, when no man knew what we were coming to, Congress boldly and with a clear sighted view of the true interests of the country, initiated the grand scheme of the Continental Railway, with its branches, amounting to 2,500 miles. Bold as this was, it has been successful, and the country has derived immense advantages from it. Now, we say,—when we say that this road does not accomplish one fourth of what is needed, and when the aid asked is not half as much as that given to the Union Pacific—we say that true economy demands that the Northern and Southern routes be completed, and it can be done without the loss of a dollar to the Government. Great Britain has a public debt of double ours, yet has never hesitated to undertake liberal measures. We have already said that the Government held vast domains, which could not be reached by emigrants without further railroads West. Let us look a moment at the map. From the south of Arizona to the Union Pacific is 600 miles, and from the Union Pacific to the Northern is 500 miles on straight lines.

Then it is 1,100 miles on a straight cord through Salt Lake, between the Northern and Southern lines of our country; for another distance east and west, 1,200 miles, it is an uncultivated wilderness. Now, near the center of this vast tract runs the Union Pacific. The Government grants of land are for alternate sections, ten miles on each side, making twenty sections, or 12,800 acres to each mile of running measure. The grant to the Union Pacific is not more than one-seventy fifth part of the public lands west of the Missouri, and an equal grant to the Northern and Southern roads would not be more than one-twenty-fifth part of the Government wilderness. It follows, then, that after deducting all the land grants, there still remains ninety-six per cent. of the public domain to be benefited by it. Now, if we suppose the influence—that is, as a means of aiding settlers—extends to fifty miles on each side of the road, and that is the utmost it can reasonably be put at, it will make a belt of 100 miles in breadth, and be just one-eleventh part of the public domain. Now, what is to be done with the ten-elevenths? Is it not clearly wise in the Government to develop that as far as possible? The only objection which can be made is that it may be delayed. But why delay it when it makes no demand on the Treasury, except the loan of credit? 250,000 immigrants enter this country annually. The great cities and manufacturing towns are filled up with them. The stream is going on to the West; but the good lands are becoming inaccessible. Ought we not to open up the roads to the great mining regions, and to the valleys of the great basin? It is exactly in this that we think liberality is economy. There are that giveth and yet increase; and there are that withholdeth and yet are impoverished. We should adopt a very liberal policy for all our new territories.

Grand Rapids and Indiana Railroad.

Annual Report.

This company is one of many that has an early history of struggles and difficulties incident to a great number of meritorious enterprises. Its most serious difficulty heretofore has been, not that it was devoid of merit as an enterprise, but that the parties who controlled its fortunes, although personally very clever gentlemen, and who had applied themselves to the work with a sort of self-sacrificing devotion worthy of better success; yet they were unable to command the capital necessary for its construction, and there was danger of forfeiting the land grant, which has, by recent emigration and progress, become of great value. The line runs from Fort Wayne, through Grand Rapids to Macki-

naw, and will develop the west interior of the State of Michigan, in a manner that nothing else could.

The annual meeting was held at Sturgis, July 15, 1868. The President, under the new organization, read a very interesting report, from which we learn that—

"The most important end to be attained during the last year was the completion of twenty miles of your road, so as to comply with the condition of the Legislative act of Michigan, approved February 12, 1867, giving to the company time until the 1st of January, 1868, for that purpose. On the 23d day of December, 1867, the road was opened for business over twenty miles of the line from Bridge street, in the City of Grand Rapids, to the village of Cedar Springs, and has since been successfully operated under the construction contract in force with Mr. E. B. Talcott and his associates.

The conditional title of the company to its valuable land grants under acts of Congress of June 3, 1856, and June 7, 1864, and State acts of February 14, 1857, and March 10, 1865, which, at the time of the extension act of February 12, 1867, was daily liable to forfeiture to the State of Michigan, has thus been protected, and with the completion of twenty continuous miles more of road on any part of the land grant line, by July 1, 1869, your title to your lands will be free from any danger by limitation of time, until June 3, 1874, the present limitation of the Congressional grant, as defined by the extension act of Congress, of March 3, 1865. All the friends of your great enterprise have this ground of hope of its success, that its magnificent landed estate has not yet been taken from it by the enemies of the road, nor can it be, without direct violation of contract, if those holding or having the greatest interest in your road shall co-operate in carrying it forward to completion.

The protection of the land grant, and what has been accomplished during the past year, are the results of a faith in your enterprise which has not shrunk from large personal responsibilities and advances to save it. The first purchase of 484 tons of iron to the amount of \$50,000, was made on the personal credit of five of your directors, united with the credit of other friends of the road in Indiana and Michigan, and that purchase was paid for and the freight on the iron paid by using the bonds of the City of Fort Wayne. The second purchase of iron, to the extent of 1,200 tons, to the amount of \$100,000, and the chairs and spikes to lay the iron on the twenty miles of now completed road, were also bought on the private credit of friends of the road in Indiana, who are still liable for over \$100,000 on their purchase, with no other security than the mortgage bonds of the company deposited with the parties who sold the iron. The reason for the use of personal credit was that in the years 1866 and 1867, the company had no financial credit wherewith to protect its most vital interests. Its embarrassments had become chronic and would have proved fatal, without the saving influence of personal credit."

The report further says:

"Large progress has been made in the final location of the whole line from Fort Wayne to Grand Rapids—and in perfecting the right of way. The entire line between

Kalamazoo and Grand Rapids has been re-surveyed, and located and improved in alignment and grades—with a view not only to immediate, but permanent economy of construction and operation. The question of location at Rome City was settled by the Board at their meeting in January—and the greater part of the work preparatory for the iron has been done at that point. From Rome City to Grand Rapids the line of location is substantially established and work equivalent to eighty miles of average grade is done, between those points. The maps of location through Noble and Allen counties, Indiana, are not yet filed. The entrance and depot location of the road in Ft. Wayne is a question of great importance. The surveys are now completed. Many causes have delayed the location in Allen county, but with the data obtained, it will be at once determined. The line between Cedar Springs and Big Rapids has been re-examined, but is yet open for improvement, before work on that section is commenced.

Work is in progress on all the divisions of the road from Fort Wayne to Grand Rapids. The largest force is engaged between Grand Rapids and Kalamazoo—with a view to complete that section this year. Construction contracts made prior to 1866, with G. W. Geisendorff and James Zimmerman have been terminated and the contractor's claims amicably adjusted. The work of construction is now going on under a contract covering 200 miles of road from Ft. Wayne North, to which Edward B. Talcott, Mancel Talcott, Horace M. Singer, of Chicago, and A. P. Edgerton, Stephen B. Bond and Wm. Fleming, of Fort Wayne, are parties."

The progress of the work is shown by the following extracts:

"The contract with Mr. Talcott and associates embraces the construction engineering, half the location engineering, the clearing, grubbing, grading, bridging, tying, track-laying, ballasting and fencing of the road, and the erection of all necessary structures in the way of buildings, on the 200 miles of road—from Fort Wayne North—and the operation of the road during the contract by the contractors, they paying to the company forty per cent. of the gross earnings, the whole work to be completed by the first of December, 1869, the contractors agreeing to advance \$80,000 on the work to be repaid by July 1, 1868, and to receive \$10,000 per mile for main track, and \$7,500 per mile for side track, 60 per cent. in cash, 30 per cent. in mortgage bonds at par, and 10 per cent. in stock at par for their compensation, with 50 cents per yard for ballasting, when the material can not be obtained within 500 feet of the track. The company is to furnish and deliver the iron rails, chairs, spikes and equipment. If this contract can be successfully and promptly executed, it will give to the company a cheap and good road, and afford to the contractors no more than a fair compensation for their labor and responsibility. The contract was based substantially, as to work and prices, upon the estimates of the consulting engineer, Mr. H. A. Gardner, Chief Engineer of the P. F. W. and C. R. R., and is being carried out under his general supervision.

The contractors are men of responsibility, character and experience, and have thus far been energetic and efficient in the execution of their contract, and have already become large creditors of the company for ad-

vances made and work done—and if the company is able to do its part under the contract, the road can be put in operation for 200 miles by the time named, December 1, 1869, but delays in obtaining right of way and realizing local means, the damaging influence of the Gardner project, the local difficulties at Grand Rapids and Kalamazoo, and the embarrassed finances of the company have a good deal retarded the progress of work. Up to the 1st day of July the estimates to the contractors, based upon the schedule of prices, arranged by the consulting engineer,

Amounted to.....\$301,372 28
Deducting from this amount the 10 per cent. the company is entitled to retain as a guaranty of completion, the amount payable to the contractors is..... 271,235 00
Viz in stock..... 27,123 50
" bonds..... 81,370 50
" cash..... 162,741 00

As none of the bonds provided for in the contract have yet been issued, the contractors have received none. Against the cash liability to them, they are chargeable with \$104,642 41 of payments made by the company. The company has hitherto provided for all the estimates to McKee & Co., and the amount paid to them, \$38,686 38, is chargeable to the general contractors as cash, and with other payments, reduces the cash liability of the company to the contractors on the aggregate of their work on 1st of July instant, to less than \$60,000, exclusive of the interest account.

In addition to the estimates to the contractors, there has been purchased and laid on the twenty miles of road completed, 1,684 gross tons of iron rails and their complement of chairs and spikes, at a cost of over \$175,000."

The following is the equipment now in use:

" 2 engines—the 'Pioneer' and 'Muskegon.'
1 passenger coach.
1 baggage car.
6 new box cars.
24 flat cars.
5 hand cars, at an aggregate cost of \$43,000."

The means for the construction of the road is shown to be as follows:

"The local means pledged to the company and supposed to be ultimately available, were at the time work was started under the new contract, as follows:

Bonds of City of Ft. Wayne, deliv'd.....\$100,000
" " Kendallville, deliv'd..... 83,000
" of Kalamazoo, voted..... 100,000
" Portage Tp., voted..... 10,000
" in Allegon Co., voted..... 33,000
" of Gr'd Rapids, vot'd (deliv'd) 100,000
" in Kent Co., voted (deliv'd)... 18,000
" " Mecosta Co., voted..... 36,000
\$478,000

The company had previously received and used in the work from Sturgis to Kalamazoo, under Mr. Zimmerman's contract:

Town bonds to amount of.....\$76,000

Total municipal aid voted.....\$554,000

In addition to these, were private obligations as follows:

Subscriptions for 1st mortgage bonds at Ft. Wayne.....\$100,000
Subscriptions for 1st mortgage bonds at Grand Rapids (in aid of bridge) 30,000
Similar subscriptions, for depot gr'ds and right of way, at Grand Rapids 17,500
Notes in Noble Co., Ind..... 28,100
Walcottville notes..... 16,275
LaGrange notes..... 61,300
Lima notes..... 19,600
\$272,776

Total.....\$826,775
Of municipal bonds the company has received:

Ft. Wayne Bonds.....\$100,000
Kendallville Bonds..... 83,000
Kent Co., Mich., Algoma, Sodom and Nelson T'ps..... 16,000

Total.....\$199,000

The Grand Rapids bonds, \$100,000, are executed and delivered to a committee, and it is hoped will soon be made available. Of the Ft. Wayne bonds \$22,000 have been sold, and advances made on the residue to amount of \$58,000. Of the Kendallville bonds \$2,000 have been paid out on work to McKee & Co., all of those bonds being limited to the work between Kendallville and Ft. Wayne. Of the Ft. Wayne bond subscription the amount already paid is \$17,146.52; on the Grand Rapids subscription \$9,250, and on the private notes in Noble and Lagrange counties, less than \$30,000 has yet been collected, not 25 per cent. of the aggregate amount. It is to be hoped that the result of the coming harvest and the more rapid progress of work will enable the company to realize more largely of the aid pledged. While nominally large, it has with the conditions attached to it been practically of little avail.

Your directors have not over looked the importance of co-operation from the successful railroad companies with whose roads your line will connect, viz.: the P. F. W. & C. Co. at Ft. Wayne—the Michigan Southern & Northern Indiana—the Michigan Central, and Detroit and Milwaukee Companies. To all these your road will be a valuable auxiliary, and they have been repeatedly applied to for such assistance in your work as their interests would seem to justify, but as yet no definite arrangements have been made with any, except the P. F. W. & C. Company. That company has furnished a passenger car and baggage car, and six box and twenty flat cars, to operate the section of road completed, and its Board of Directors, on the 29th of June last, approved a contract by which the P. F. W. & C. Company agrees to set apart, semi-annually, 50 per cent. of its net earnings from an interchange of business between the two roads, to the purchase at a price not exceeding par, \$1,500,000 of the first mortgage mortgage bonds of this company—the proceeds of the bonds as sold to be applied to the construction of your road from Ft. Wayne to Cedar Springs.

The contract is fair and liberal in its provisions, and leaves your company open to similar arrangements with other connecting roads. The same contract has been proposed in substance to the other three companies named, but as yet they have not indicated any purpose of co-operation. The interest of the P. F. W. & C. Company would justify more direct and immediate aid than their contract contemplates, and such aid as yet looked for, but the contract is an important

addition to your credit, and it is believed will insure the sale of \$1,500,000 of bonds, so soon as they can be brought into market on a clear record of the company. The proposed new bond and mortgage are drawn and the bonds in course of printing, and will soon be perfected. The proceeds of the \$1,500,000 of bonds are especially designed, and will be adequate to provide for the iron from Fort Wayne to Grand Rapids. In confidence of the result of the contract with the P. F. W. & C. Company, a contract has already been made for 4,500 tons of rails, at a cost, including duty and freight to Detroit, of about \$375,000, now arriving under custom house bond at Detroit, to complete the section of road from Kalamazoo to Grand Rapids during this year. The importance of this result can not be over estimated. It will place the road in a self sustaining position and add largely to its ability for further progress."

The company, in its progress, has incurred liabilities as follows:

"For iron rails for the section of road completed, secured by private credit.....\$100,499 92
For 4,500 tons of rails to complete the road from Kalamazoo to Grand Rapids..... 264,837 42
Exclusive of duties and freights to Detroit, w'h will be about.... \$115,200
Rolling stock..... 42,417 12
Loans in New York..... 72,922 02
" " Chicago..... 50,000 00
" " Ft. Wayne..... 14,700 00
Cash liabilities to contractors to July 1, as claimed by them, subject to adjustment..... 71,710 00
Advance by contractors to take up bonds held by Jos. Lomax.. 9,000 00
Advance by P. F. W. & C. R. W. Co. to take up bonds..... 5,116 66
Advances for right of way at Kalamazoo..... 13,191 65

Total, exclusive of int.....\$645,394 79

For these liabilities, bonds, of the company of the class of 1860 are held as collateral. In the city bonds, which can be used for the purpose, and in the \$1,500,000 of bonds to be endorsed by the P. F. W. & C. R. W. Co. contract, and other bonds to be issued, there will be reliable means to meet these various obligations."

A condensed exhibit of the financial condition of the company is herewith shown:

"LIABILITIES, JULY 1, 1868.

CAPITAL STOCK.

Stock issued.....\$959,275 00
In which is included interest stock.....\$103,250
Mackinaw stock to be cancelled..... 173,000 276,250 00
Full paid stock issued.....\$683,025 00
Of which was issued for municipal bonds..... 371,500 00
Private stock.....\$311,525 00
The books show the total amount paid on private stock to be..... 384,477 49
Of which \$72,952 49 remains unissued, not being full paid stock.
Adding to the above amount of...\$683,025 00
Stock paid for and not issued... 72,952 49
Stock due contractors..... 27,123 50
Stock liability is.....\$783,100 99

BONDS.

First mortgage bonds sold.....	\$127,000 00
Bonds of proposed new issue due contractors.....	81,370 50

UNFUNDED DEBT.

Old debt mostly standing under agreement to fund in bonds, estimated at.....	\$350,000 00
New debt for iron, equipment, loans, &c.....	645,394 79
Duty and freight on 4,500 tons of iron in bond.....	110,000 00
Add for contingent and unadjusted liabilities.....	10,000 00
	<hr/>
	\$2,106,866 28

ASSETS.

Bonds of City of Ft. Wayne.....	\$78,000
Bonds of City of Kendallville.....	81,000
Bonds of City of Grand Rapids.....	100,000
Town bonds in Kent Co., Michigan.....	13,700
	<hr/>
	\$272,700
Total construction and all other expenditures to July 1, 1868, including 4,500 tons rails, in bond.....	1,834,166 28
	<hr/>
	\$2,106,866 28

This is a very satisfactory showing, and under the management of the present parties will enable the company to complete its work as fast as is expected. Since the issue of the above report we learn that the Governor of Michigan has accepted the twenty mile section of the road, from Grand Rapids to Cedar Spring, as completed, in conformity with the conditions of the land grant made to this work. This acceptance entitles them to the lands given to it along this completed section of twenty miles.

The officers of this company are Joseph K. Edgerton, President; Samuel T. Hanna, Treasurer; John M. Godown, Secretary; H. A. Gardner, Engineer.

Railroad Movements in Michigan.

We abstract from our exchanges the following, which shows wonderful activity in our Northern sister State. In view of the fact that we are seeking connections with Michigan by two lines at least, these evidences of progress in that State have more than usual interest to us. Besides they may stimulate anew the energies of our own people to move ahead the enterprises in Ohio that will place us in connection with the system of roads in the peninsula. All around us the people are at work, whilst we seem to be still in the talking state. Is it not time we were moving out of this condition and be up with the age?

The *Detroit Advertiser & Tribune* of the 8th, in its notice of Adrian, says:

The railroad meeting here Monday evening was largely attended. The hall was crowded

to its utmost capacity, and the greatest enthusiasm prevailed throughout. Delegates were present from several counties in northern Indiana, and Lenawee and Washtenaw counties, in southern Michigan. The delegates from Indiana represented both Logansport and Fort Wayne, these places both desiring the road. Running the road to Logansport would leave Fort Wayne a few miles to the South of it, which, of course, the Fort Wayne people do not wish. The competition between the two places is pretty sharp, and each pledges itself to grade the road, and prepare it for the iron to the Michigan State line. The Indiana delegates all expressed a determination to open up an outlet east by way of Detroit, and thus avoid Toledo. The proposed route will be very near an air line to St. Louis, *via*, Adrian and Fort Wayne. Hon. Andrew Howell, chairman of a committee heretofore appointed, reported the probable cost at \$7,000 per mile ready for the iron. A resolution was unanimously adopted pledging the city of Adrian for \$150,000 to aid in the construction of the road. The township of Seneca, which includes the village of Morenci, also pledged the sum of \$50,000. A committee, of which R. R. Beecher is chairman, was appointed in reference to calling a meeting at Detroit. The meeting adjourned to the 19th, at which time it is expected that steps will be taken to organize a company.

From a later issue of the same paper we clip the following:

We learn from the *Citizen* that work was commenced on the grading of the Jackson, Fort Wayne & Cincinnati Railroad, at a point a short distance this side of Jonesville. The contract between Jackson and Jonesville has been let to Mr. A. McDonald, of Jackson, the same gentleman who filled a similar contract on the Jackson, Lansing & Saginaw Road. The work between Jonesville and the State line has been given to L. A. Danby, the contractor of the earthwork on the Grand River Valley Road. Mr. Arnold Watkins, of Leslie, who furnished most of the ties on the J. L. & S. road, has a contract for 25,000 ties, and Hon. Witter J. Baxter, of Jonesville, is advertising for 30,000 more in behalf of the company. Mr. McDonald has commenced grading in Hillsdale county, near Jonesville, and also in the township of Hanover, in this county. It is the intention of the directors to push the work rapidly ahead, and it is expected that the road bed from Jackson to Jonesville will be ready for the iron before June 1, and the entire line will probably be completed before the close of the year, for it is confidently expected to finish it to the State line the coming season, and we hear that the completion of the Indiana portion will not be far behind. Subscriptions to the capital stock of the company are being cheerfully paid, and everything is moving off harmoniously.

A conversation with a gentleman posted in railroad affairs, recently from Michigan, corroborates our advices, by letter, that the people along the line of the Cincinnati, Lansing & Mackinaw road are very anxious to be at work, and are ready to subscribe handsomely to the scheme.

If this spirit is at all responded to by the Ohio interest as it ought to be, this last named work can be soon going ahead rapidly as any other.

A correspondent writing from Jacksonville

speaks of that point in the following flattering terms, as a railroad centre:

Jacksonville, aside from its wide-spread reputation for its admirable educational institutions, is rapidly becoming an important railroad centre.

The Toledo, Wabash and Western R. R. passes through the city from east to west, on the direct line of a through central route from Philadelphia, that will soon connect with the great Pacific road; the Alton, Jacksonville and Chicago road from north to south, connecting with St. Louis, Chicago, and, by the recent consolidation, with Rock Island; the connection with Moberly, Mo., by the road now under process of construction from Naples *via*, Hannibal; and the completion of the Illinois River road from Virginia, Cass county, connecting this city by rail with Peoria and Northern Iowa.

The work on this latter road is now rapidly progressing, and will be completed next season.

In addition to the above lines, two other roads have been projected, and will probably be built within the next two years—a road from Mexico, Mo., *via*, Louisiana, Pittsfield and Winchester, to Jacksonville; also a road from Jacksonville to Shawneetown, tapping a wealthy agricultural district in a southeastern direction, not yet traversed by any railroad. A company was chartered at the last session of the Legislature, to build the latter named road.

The Union Railroad—Tunnel Through the Northern Limits of Baltimore.

The Union Railroad enterprise, started some time since, with a view of giving an outlet at tidewater to the various railroads, built and contemplated, entering the city on its north side, is assuming a shape and proportions which induces those having its management in hand to believe it will be fully completed during the ensuing two years.—The line of the Union road branches off from the Western Maryland Railroad (and is practically an extension of the latter) about half a mile east of Owings' Mills, in Baltimore county, and approaches and enters the city by a more direct route than is secured for the Western Maryland by its present connection with the Northern Central Railway. With a view to its being built, in addition to a limited amount of stock subscribed by individuals, the Western Maryland Railroad subscribed \$50,000, the Canton Company (through whose grounds it will reach tidewater) \$50,000, while the Northern Central Railway Company, which some years ago commenced building a connection with their road from Canton, but suspended it by injunctions, &c., concedes the portion of work done on that line which is to be used by the Union Company, and which is estimated at \$50,000. In addition, the city agreed to endorse the bonds of the company to the amount of \$500,000.—This is the basis on which the work proceeds, but it is contemplated that a considerable revenue will be derived from the Potomac Railroad when built, as that corporation also will use the track, in conjunction with the Northern Central and Western Maryland, to reach tidewater. There has already been a considerable amount of work executed on the Union road, and the contractors are, it is said, pushing it forward as rapidly as prudence will allow.

On leaving Charles street avenue the line of the Union Railroad runs along the bed of

the falls, directly through the old Mount Royal reservoir, to the Belvidere bridge, thence through the ravine to the York turnpike, which it is designed to pass under (the small stream running into the falls through the ravine being already bridged over by a permanent stone structure). After passing under the York turnpike, the railroad strikes the bed of Hoffman street, running along the line of Greenmount avenue several hundred feet, and until the hill is reached approaching the Harford turnpike. Here a large tunnel commences, reaching to within a short distance of the Belair road, the tunnel to be from 2,500 to 2,900 feet in length. The first shaft has been sunk near the rear wall of the cemetery, to the depth of 48 feet below the surface, and about 150 feet excavated; but much difficulty has been experienced by the quantity of water, it being necessary to work day and night in order to keep the shaft clear of water. The excavations now being made are through blue and yellow clay and sand. The second shaft has been sunk near the Harford road, but so far but little work has been done in consequence of the amount of water accumulating at the base of the shaft. The contractors are about placing a steam engine at the shaft, in the hope of so relieving it of water as to enable the workmen to pursue the operations. The third shaft is between the heads of Caroline and Eden streets, and although there is a considerable amount of water here, a large force of workmen are making considerable progress.

The object of the visit yesterday was to determine whether, instead of tunneling, as at present, it would not be more economical to dig away the earth from the surface down, then arch over the track, and afterwards fill in, Mr. Tegmeyer, the city Commissioner, being determined that the line of the road shall in no way interfere with the grades of streets already opened or to be opened.

The Northern Central Railway Company, it may be proper to state in this connection has purchased all the ground on Charles street avenue, running from the falls several hundred feet north, and including all that portion of the old Mount Royal reservoir not used for track purposes, by the Union Railroad Company. The object of the Northern Central Railroad Company is to use this large property for depot purposes, machine shops, &c., the same as is now carried on at Bolton. The road in its approach to the city is also to be considerably shortened and straightened by the building of a bridge over the falls for the use of the road, about midway between the Belvidere and Charles street bridges, and thus avoiding the circuitous route now used by way of the Bolton depot, abandoning the latter as a depot altogether. The entire face of this section of the city will, in a year or two, assume a great and important change.—*Baltimore Sun, Dec 3.*

Union Pacific Railroad.

[From the Cincinnati Gazette of January 8.]

The following extracts from another report of J. L. Williams, Government Director, dated August 15, 1868, referring to the necessity of a "reserve fund" out of the subsidy, for more full completion and equipment, illustrates the main difficulty arising under the present law. The road must be "first-class." But no new road, such as this is when offered for inspection, can meet this requirement. Hence, a part of the Government bonds should be reserved to bring up the road to

the proper standard. A provision somewhat similar was in the first act, called the "Colamer Amendment." But this, like the first lien of the Government, was unfortunately stricken out in the amendatory act. When the time shall come for a second Pacific Railroad, let this reasonable security be inserted, as suggested by Mr. W.:

I have thought it my duty, as one of the Government Directors, to urge upon the Board the setting apart of a "reserve fund," sufficient to meet this cost, so that the work of completion and full equipment might progress without intermission, and without resort to new financial arrangements. This completion and equipment fund being held for the benefit of the road and its stockholders, and applicable only to this essential work, would greatly strengthen the securities of the road. I am not advised whether any such measure is in contemplation, nor is it for me to judge whether, under the law, there is authority reserved to the Government to withhold for this object any portion of the subsidy in case this should be necessary to meet the end in view.

It has seemed to me that in order to carry this work over the DEAD POINT, generally felt in all newly opened roads, when the construction fund fails, and before the traffic can be fully diverted to a new channel, the Government subsidies to this amount, instead of being added to the profits of building the road, should be devoted to perfecting and sustaining the work at its first opening. The interest of the stockholders, no less than that of the Government and of commerce, would be thus promoted. The annexed copy of a letter to the President of the Company, marked "B," will further explain.

In the light of this whole subject I can not forbear to suggest, though not strictly within the scope of this communication, that if the Government should see proper to aid other lines across our unoccupied domain by similar subsidies or loans of credit, only a portion of such aid, say four-fifths, should, by law, be payable when the track is open for the running of trains, and the remainder one or two years afterward, or when, in the judgment of a board of experienced railroad engineers or superintendents, the work shall have been brought up to the standard of a first class road.

If we aim at securing across the continent the commerce of the world, we must provide not only a through route over which trains may pass, but a railroad that, in degree of completeness, perfection of management, and certainty of transit, shall invite that commerce.

(B)

END OF TRACK, July 1, 1868.

DEAR SIR: I beg leave to submit for your consideration the enclosed paper, explanatory of the suggestion of a "reserve fund." If not the best, it may lead to a more feasible scheme.

That there is a practical difficulty in the case all must admit. Your very rapid progress with the track without waiting, in all cases, to build permanent work, is for the interest of both the company and the country, and should be encouraged. But on the other hand, those representing the Government may well hesitate to sanction the delivery of the entire subsidy, liberal as it certainly is, for the whole extent of the road, while the work is in so incomplete a state as it must necessarily be, when each successive twenty mile section is presented for inspection.

It is unnecessary to remind you of the large expenditure required on any new road just opened, in the way of improvement, enlargement and equipment, before its facilities are adequate to earn, at reasonable rates, the large sum per mile which we all expect from the Union Pacific Railroad.

I respectfully ask of you a careful consideration of this subject, that the true interests, both of the company and the Government, which, it seems to me, do not conflict, may be secured.

I should add that if the control of the work would certainly remain in the hands of the very respectable and wealthy gentlemen now holding the stock, no such precaution might be necessary, for they would put in fresh money as needed to make an efficient road. But in the ever-changing control of such works, this is not probable. With high respect, your obedient servant,

J. L. WILLIAMS,

Government Director Union Pacific R. R.

Hon. O. H. BROWNING, Sec. of the Interior.

The New York Central Dividend.

For some time past the stockholders in the New York Central Railroad Company have been promised a division of a certain large surplus of earnings said to exist in the hands of the Company. In three or four instances this promise, coming apparently from the management, has been made the occasion of extensive speculations, under which the stock has fluctuated between 115 and 135; and at last the dividend has come, exceeding the most sanguine expectations. Upon all outstanding stock, holders receive a certificate equivalent to eighty per cent. of the amount of their shares, and four per cent. in cash on the stock and on the certificates, making \$7.20 in cash, and eighty per cent. in scrip. The dividend was made, with a very singular precipitance, near midnight of Saturday last, and at the residence of one of the city directors. If we may believe all that is stated in well-informed circles, some millions of this scrip had been prepared in anticipation of the action of the Board, and was taken by a leading director on account of himself and friends, immediately upon the passage of the resolutions, to evade, it is presumed, any possible legal interruptions. Before daylight on Monday an injunction was served upon the Treasurer of the Company, restraining him from issuing the certificates; but the Treasurer is understood to have disregarded the prohibition upon the ground that the documents were being issued by the Union Trust Company, a function which we have reason to believe that Company disclaims. However this may be, the certificates have since been in process of issue from the hands of the Treasurer. An injunction was also issued a short time previous to the directors' meeting, restraining the direction from making any dividends upon the stock issued against convertible bonds; and the officers of the Company state that they intend to respect that order so far as to issue the scrip only against about \$23,000,000 of stock, until the injunction is settled. The scrip declares the holders to be entitled to the same dividends as may be paid upon the share capital, and conveys a claim to an equivalent amount of stock upon the Company obtaining authorization to issue it. In some quarters serious doubts are expressed as to the validity of this very peculiar form of scrip; the directors, we have reason to believe, however, have taken

the best legal advice to assure themselves upon that point.

The scrip is said by the Board to represent surplus earnings invested in construction and real estate and the general appreciation of the property of the company. This pretense is the most marvellous feature of this extraordinary proceeding. It is very unexpected information to the public that the Central Company has had any important surplus for employment in construction or real estate; and the inquiry is very naturally made, where do these investments appear? So slight has been the surplus that money has repeatedly been borrowed for dividends, and the directors have represented to the Legislature that, without an increase of fare they could earn nothing for the stockholders, the reports made to the State engineer show that, after paying ordinary expenses and providing for interest and dividends, the surplus income for the last fourteen years aggregates only about \$5,000,000, which has been represented by additional issues of stock. To represent that the surplus income and the improved value of the Company's real estate warrant an increase of capital to the extent of \$22,500,000 is nothing short of an attempt to practice a bold deception upon the public. It was however, necessary to make some show of reason for this extraordinary procedure; and this was, doubtless, deemed the one best calculated to serve the purposes of the directors.

The real occasion of the dividend is to be found in the speculative operations of parties associated with the management. It is a matter well understood in the better informed circles of Wall street, that, some few months ago, a knot of capitalists, mostly in the direction, combined for the purchase of \$7,000,000 of the stock of the Company; and in order to facilitate the purchase and the carrying of the stock, a loan was contracted with a London banking house upon the stock as collateral, the loan to run for two years, if necessary. The stock was systematically depressed previous to the purchase, and was bought at 84 to 95, averaging about 90. In addition to this, a prominent director and his family have held a large amount of stock from the inception of Mr. Vanderbilt's control; and this clique operation served as a support to his management, the operators being pledged to his policy and basing their operation on a knowledge of his plan. The declaration of this dividend is the consummation of the scheme. The clique realize about 60 per cent profit on \$7,000,000 of stock, or say \$4,200,000, and a family prominently connected with the road makes a still larger profit. But how has it fared with the ordinary stockholders? At the time these gentlemen formed their magnificent scheme, the stockholders outside the "ring" were not only held in utter ignorance of the private plans of the directors, but the stock was systematically depreciated below its real value, so as to frighten them into selling to the directors and their friends.

This operation is a fair illustration of the manner in which the directors speculate upon their exclusive knowledge of the affairs of corporations, to the injury of the non-official stockholders. Either the N. Y. Central Company has had a much larger surplus income than appeared from its annual reports, and the present dividend fairly represents it, or the representations of surplus earnings are fictitious and the dividend is unwarranted. In the former case, the stockholders ought not to have had the prosperous condition of the road concealed from them, but should, in

all justice, have been allowed a full knowledge of the facts necessary to properly estimate their stock; such information, however, would have prevented the stockholders from selling to the directors at low figures, and for that reason it was withheld. In the latter case, the public equally suffer from their ignorance of the affairs of the road; for they are quite likely to take from the directors and their friends the stock they have advanced to such high figures, upon the pretense of the extraordinary prosperity of the Company. While Directors are permitted to monopolize information respecting the business of the roads, they are not to be expected, in the present condition of public morals, to avoid the temptation to practice upon the ignorance of the stockholders and the public. The only remedy is in the Legislature requiring each road to make a faithful return of earnings and expenses at least once a month. The New York Central Company has confined itself to an annual statement; had it done justice to its stockholders, by making a monthly return of its business, the stockholders would not have been taken by surprise with this extraordinary dividend. Unless some measures are adopted for terminating this official concealment, there is no possibility of the maintenance of public confidence in railroad securities.—*Commercial and Financial Chronicle.*

Railroads of the United States.

[From the American Railroad Journal, January 2.]

The development of the railroad systems of the United States, in the year 1868, has been more rapid than in any former year. Nominally we have an increase of 3,450.37 miles, and in the cost an immense sum of \$193,245,232 over the figures given by us as the totals of the previous year. Much of this aggregate is due directly to the progress made in building the Pacific Railroads, and indirectly to the impetus the near approach to their completion has given to railroad building throughout the country, but more especially in the States between the Mississippi and Missouri rivers, and also in California. There is little doubt, also, but that our figures for 1868 did not include many miles of railroad that were brought into use in the last part of the year 1867, the facts not having come to our notice in time for their entrance. Deducting these, or, in other words, adding them to the figures for 1868, we may safely assume that 3,000 miles have been built in the year just passed. The apparent increase in cost is excessive, but it must be remembered that very large amounts have been added to the construction accounts of pre-existing railroads, and in many instances the nominal cost of roads has been largely increased by the operation of consolidations and reorganizations. Our figures, however, do not include issues of stock without cost, as in the Erie case, but are as near correct as reference to the latest official report, or close estimate, can make them. Of the total given above, probably \$150,000,000 has been added for 3,000 miles of road, which, considering the expensive character of the Pacific lines, is not too large an estimate, being but an average of \$50,000 per mile, while the Pacific roads are not built for less than an average of \$80,000 per mile. Large amounts are also lying dormant on roads in progress and not yet finished. The following shows the distribution of mile-

age and cost to the several States and Territories:

	Miles of road—		Cost of road and equipment.
	Total.	Open.	
Maine.....	944.19	59.67	\$19,799,321
New Hampshire.....	782.72	608.72	21,975,319
Vermont.....	643.59	603.59	21,347,149
Massachusetts.....	1,537.36	1,435.43	68,355,321
Rhode Island.....	121.47	121.47	5,006,665
Connecticut.....	782.66	641.23	21,094,859
New York.....	4,459.58	3,324.87	182,534,213
New Jersey.....	94.75	972.75	69,770,243
Pennsylvania.....	4,937.72	4,397.74	257,724,227
Delaware and East Maryland (other than above).....	362.90	242.94	7,463,196
West Virginia.....	654.95	457.45	28,520,899
Virginia.....	605.85	361.75	22,404,100
North Carolina.....	1,909.88	1,464.37	47,540,039
South Carolina.....	1,617.79	1,096.67	25,637,414
Georgia.....	1,318.17	1,076.17	25,131,640
Florida.....	1,977.60	1,574.69	31,309,050
Alabama.....	613.20	440.20	9,294,000
Mississippi.....	1,604.90	652.69	28,511,736
Louisiana.....	900.20	900.20	24,457,303
Texas.....	837.30	370.50	14,321,201
Arkansas.....	1,337.50	511.00	14,416,000
Tennessee.....	687.00	86.00	4,211,000
Kentucky.....	1,760.63	1,435.63	43,018,916
Ohio.....	1,418.95	812.65	28,799,255
Michigan.....	4,153.44	3,351.97	109,044,101
Indiana.....	2,044.26	1,199.26	44,547,043
Illinois.....	3,246.10	2,600.10	104,229,226
Wisconsin.....	4,561.91	3,439.91	1,659,870,162
Minnesota.....	1,773.60	1,231.60	48,469,301
Iowa.....	1,754.00	571.50	18,464,000
Nebraska.....	3,032.90	1,532.90	61,338,000
Wyoming Territory.....	449.00	420.00	21,040,000
Montana.....	560.10	511.00	41,000,000
Missouri.....	1,874.99	1,333.80	64,014,458
Kansas.....	1,123.00	648.00	30,840,000
Colorado.....	3.00	.....	3,000,000
Utah Territory.....	305.00	105.00	9,440,000
Nevada.....	390.00	320.00	23,000,000
California.....	2,011.36	465.50	30,360,000
Oregon.....	2,119.50	19.50	500,000

Tot. Jan. 1, '69.....62,917.10 42,272.18 \$1,853,706,041

RECAPITULATION BY SECTIONS.

6 North-eastern States.....	4,812.99	4,020.11	\$162,523,034
6 Middle-eastern States.....	12,003.65	9,764.40	567,489,218
5 South-eastern States.....	7,466.4	5,641.91	139,023,127
7 Gulf and Southern Interior States.....	9,046.48	5,070.53	157,813,431
11 Northern Interior States, &c.....	24,439.35	16,372.08	760,626,231
5 Western States, &c.....	5,156.00	913.00	66,186,000

Aggregate Jan. 1, '69.....62,917.10 42,272.18 \$1,853,706,041

In these tables, it is here proper to state, the Union Pacific Railroad is assumed to have been completed to the Great Salt Lake, 1,035 miles, and the Central Pacific, of California, a length of 458 miles. These distances were expected to be reached by January 1, 1869. The length of the Central Branch is set down at 120 miles, and that of the Eastern Division at 405 miles, those being the distances last reported. Should the actual result of the year be more or less, the proper allowances must be made, by deduction or addition, as the fact may require.

The following compares the aggregates as given by us for January 1, 1868 and 1869:

	Miles of road—		Cost of road and equipment.
	Total.	Open.	
Jan. 1, 1868.....	54,536.85	38,821.81	\$1,600,400,819
1869.....	62,917.10	42,272.18	1,853,706,041
Inc. last y'r.....	8,380.25	3,450.37	\$193,245,232

RECAPITULATION OF AVERAGE COST BY SECTIONS.

6 North-western States.....	\$40,430	1	\$0,027
6 Middle-eastern States.....	8,217	5	55,406
5 South-eastern States.....	24,597	0	24,597
7 Gulf and Southern Interior States.....	31,121	1	3,210
11 Northern Interior States, &c.....	45,128	5	42,881
5 Western States, &c.....	72,498	5	68,875
Aggregate.....	\$43,849	5	\$41,658

The annual progress of railroad building since, in 1827, the commencement was made in the construction of the Granite Railroad at Quincy, Massachusetts, to the present time, is shown in the following table:

Year.	Miles.	Year.	Miles.
1828.....	3	1849.....	6,350
1829.....	28	1850.....	7,475
1830.....	41	1851.....	8,589
1831.....	54	1852.....	11,027
1832.....	131	1853.....	13,497
1833.....	576	1854.....	15,672
1834.....	762	1855.....	17,309
1835.....	918	1856.....	19,251
1836.....	1,102	1857.....	22,625
1837.....	1,421	1858.....	25,090
1838.....	1,843	1859.....	26,775
1839.....	1,920	1860.....	28,771
1840.....	2,197	1861.....	30,592
1841.....	3,319	1862.....	31,769
1842.....	3,877	1863.....	32,471
1843.....	4,174	1864.....	33,860
1844.....	4,311	1865.....	34,442
1845.....	4,522	1866.....	35,351
1846.....	4,870	1867.....	36,896
1847.....	5,336	1868.....	38,882
1848.....	5,682	1869.....	42,272

City passenger railroads are not included in the above summary. These are now in general use in all considerable cities, and in numerous instances in places where population is less dense. Their economical bearings are fully recognized, and their popularity is increasing. Boston, New York, Brooklyn and Philadelphia count their street railroad tracks by hundreds of miles. Probably the total is not less than 2,000 to 2,500 miles.

Nor have we included in our statement any account of the second tracks with which most of the leading lines are supplied, nor the sidings and turn-outs on all the lines. These may be estimated at twenty five or thirty per cent. of the length of the road, and are being added to yearly. Adding these supplementary tracks to the tabulated mileage, we find the total length of equivalent single track in use is from 52,500 to 55,000 miles, and if we add to this the equivalent for the city passenger tracks, to nearly 60,000 miles. It is now forty years since we began to build railroads, and in that time we have built a greater length than is to be found in the whole of Europe. Progress leads but to new demands and new enterprises.

RAILROADS AND CANALS IN 1840.

We take the following from a work entitled "A Description of the Canals and Railroads of the United States, by H. S. Tanner," published by Tanner & Disturnel, New York, 1840, and, although the statements vary somewhat from the table of the *American Railroad Journal*, we deem them of sufficient interest to give them in detail:

NORTHERN STATES.			
	Miles Railroad.	M's Canal.	
Maine.....	10.	50.50	
New Hampshire.....	30.47	11.13	
Vermont.....		1.06	
Massachusetts.....	352.30	103.50	
Rhode Island.....	47.		
Connecticut.....	171.	61.50	
New York.....	575.36	985.94	
New Jersey.....	215.30	147.75	
Pennsylvania.....	853.58	973.81	
Illinois.....	26.	105.90	
Indiana.....	95.	217.	
Ohio.....	76.	764.	
Michigan.....	127.		
Total.....	2,579.51	3,422.09	

SOUTHERN STATES.

	Miles Railroad.	M's Canal.
Delaware.....	19.19	13.63
Maryland.....	262.60	136.
Virginia.....	361.50	216.25
North Carolina.....	246.	13.50
South Carolina.....	201.75	52.45
Georgia.....	616.	28.
Alabama.....	307.46	51.75
Louisiana.....	97.25	99.25
Florida.....	12.	
Mississippi.....	83.	
Tennessee.....	164.50	
Kentucky.....	94.25	
Total.....	2,465.50	610.83

	Miles.
Northern States—Railroads.....	2,579.51
" " —Canals.....	3,422.09
Southern States—Railroads.....	2,465.50
" " —Canals.....	610.83

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BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-end package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets $2\frac{1}{2}$ inches in width, and under. For Tickets over $2\frac{1}{2}$ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race.

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

W. M. WITH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
Aug. 2, 1886.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

A locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6:15am.....	7:10pm
" Dayton.....	8:35 ".....	9:30 "
Arrive West Salem.....	1:50pm.....	4:53am
" Leavittsburg.....	4:55 ".....	7:35 "
" Meadville.....	7:35 ".....	11:10 "
" Susquehanna.....	7:48am.....	11:29pm
" Paterson.....	2:25pm.....	6:03am
" New York.....	3:15 ".....	7:00 "
" Boston.....	5:45am.....	4:45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequalled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

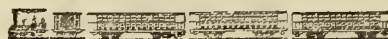
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at the northeast corner of Broadway
and Front streets, and at No. 40 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKEN, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1886, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a.m. and 8:00 p.m. On Sundays, one Express Train
at 8:40 p.m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.
State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p.m., Pittsburg 12:10 p.m.

9:00 a.m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p.m. Without change of cars from
New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.;
Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at
7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West leaving Pitts-
burg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Read-
ing at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at
1:19 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton
at 1:35 p.m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Read-
ing at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at
7:20 p.m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7:00 A. M.	9:10 A. M.
Springfield & St. Joseph Ex.....	12:00 P. M.	4:30 P. M.
St. Louis & Chicago Ex.....	4:55 P. M.	12:15 A. M.

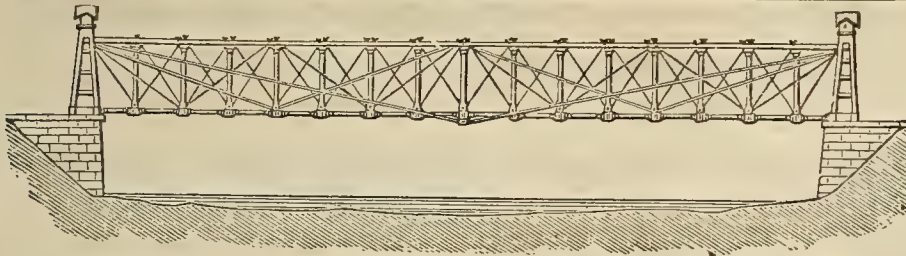
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5:15 P. M.	5:05 A. M.
Harrison Accommodation.....	10:10 A. M.	2:25 P. M.

Through Tickets can be obtained at the Burnet House-
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the pri-
cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and all land work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan, and soundness of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order, Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor. Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston and all Eastern points with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati

W. P. SHINN, General Freight Agent,
Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

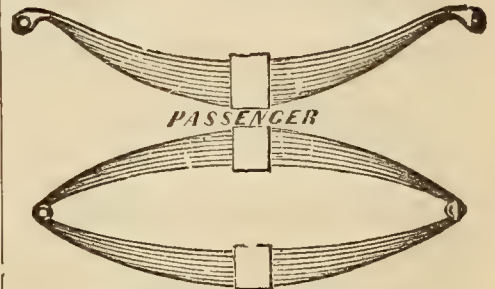
MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
300 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER

LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to tent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,

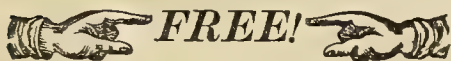
PHILADELPHIA,

NEW YORK, and

BOSTON,

[HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Even. Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	8 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Office, 132 Vin Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE,
General Superintendent,

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 30 am	2 30 am
Carroll and St. Louis Express.....	2 20 pm	4 08 pm
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 08 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10 0 am	8 35 am
Connersville and Cambridge City.....	4 00 pm	9 15 am
Lawrenceburg.....	4 45 pm	2 50 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

[ARCHED AND FLAT.]



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas, Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—¼ to 24 inches in diameter, and branches for same, &c.,

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS,

THOS. T. TASKER, JR.,

CHAS. WHEELER

S. F. M. TASKER

HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. (Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON, }

CINCINNATI:
THURSDAY, JANUARY 21, 1869.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
“ “ per month.....	3 00
“ “ six months.....	12 00
“ “ per annum.....	20 00
“ column, single insertion.....	5 00
“ “ per month.....	10 00
“ “ six months.....	40 00
“ “ per annum.....	80 00
“ page, single insertion.....	75 00
“ “ per month.....	25 00
“ “ six months.....	110 00
“ “ per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.			
	DEPART.	ARRIVE.	
Morning Express	7:00 P. M.	6:10 A. M.	
Night Express	6:00 A. M.	6:00 P. M.	
LITTLE MIAMI.			
Lightning Express.....	7:00 A. M.	4:35 P. M.	
Express Mail.....	8:30 A. M.		
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.	
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.	
Lightning Express.....	8:00 P. M.	10:35 P. M.	
Night Express.....		6:15 A. M.	
CLEVELAND, COLUMBUS & CINCINNATI.			
Lightning Express.....	7:00 A. M.	7:25 P. M.	
Express Mail.....	9:30 A. M.	5:25 A. M.	
New York Express.....	8:00 P. M.	8:35 A. M.	
MARIETTA AND CINCINNATI.			
Depot on Pearl street, bet. Plum and Central avenue.			
Baltimore and Washington City			
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.	
Baltimore and Washington City			
Night Express.....	12:35 A. M.	5:50 A. M.	
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.	
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.	
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.	
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.	
CINCINNATI, HAMILTON AND DAYTON.			
Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.	
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.	
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.	
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.	
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.	
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.	
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.	
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.	
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.	
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.	
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.	
Dayton Express.....	5:00 P. M.	6:10 A. M.	
CINCINNATI, SANDUSKY & CLEVELAND.			
Day Express.....	7:20 A. M.	7:05 P. M.	
Night Express	5:45 P. M.	10:25 A. M.	
CINCINNATI AND INDIANAPOLIS JUNCTION.			
Indianapolis, Rushville and Connersville Mail.....	7:00 A. M.	10:45 A. M.	
St. Louis Express	2:30 P. M.	5:10 P. M.	
New Castle and Cambridge, City, Express.....	7:00 A. M.	10:45 P. M.	
Indianapolis, Cincinnati and Lafayette.			
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.	
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.	
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.	
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.	
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.	
OHIO AND MISSISSIPPI.			
St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.	
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.	
Louisville Special Train.....	3:45 P. M.	1:50 A. M.	
CINCINNATI AND ZANESVILLE.			
Mail.....	7:00 A. M.	4:10 P. M.	
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.	
KENTUCKY CENTRAL.			
Express.....	6:00 A. M.	6:00 P. M.	
Lexington Express.....	2:00 P. M.	10:50 A. M.	
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.	
PAN HANDLE ROUTE.			
Express Mail.....	7:00 A. M.	6:15 A. M.	
Fast Express	8:30 A. M.	4:35 P. M.	
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.	

The Progress of our Railroad System.

Events of great interest have recently occurred in the affairs of some of the older roads which, however, have been frequently glanced at as part of the inevitable future, but the time of which we could not foretell. Gradually the great Eastern Railways had to learn two things: First, That there were three points in the great Central Valley they must reach—not so much for the sake of these points, as for sake of what lay behind them. 1. They must reach Cincinnati; for, say what they may, it is only through Cincinnati they can reach even Louisville, or Memphis, and much more is it certain that only through Cincinnati they can reach the great Southern country, and if that is not a necessity to-day it will be to-morrow. There is an *ultimate* for all that country lying in East Kentucky, East Tennessee, South-west Virginia, West North Carolina and Northern Georgia. That ultimate will come. The Southern Railroad will come. The whole Southern business must and will pour into Cincinnati. Hence all the great Atlantic lines must come to Cincinnati, sooner or later. 2. For reasons equally imperative, they must come to St. Louis. St. Louis is practically at the outlet of the great Missouri Valley, and practically at the outlet of the Kansas Valley, leading into New Mexico and South-west United States. Hence the great lines must go there. 3. All of them admit they must go to Chicago, which is the shipping-point of the North-west, and to go there they must go by the Lake Shore line. They have all discovered this, and they have all pressed on there. Thus we have the first condition—the great trunk lines must follow, to go directly to Cincinnati, St. Louis and Chicago. The second condition is that they must go there *themselves, and not depend on other and local lines.* This is a condition that they have not understood till recently, and now, that they do understand it, we find all the great trunk lines in great haste to make *consolidations*, by buying up and leasing intermediate roads; and this is, unquestionably, good policy. The newspapers have recently noticed several railroad operations which have surprised the public, and have been alike sudden and effective. The first in the field with a clear knowledge of the future is the Erie Road. A great deal is said about the operations of the Erie, and about wrong here and wrong there, but the managers of the Erie are right, and have proceeded straight to the accomplishment of what we have here stated, as their clear interest, if they wish to remain a great trunk line, commanding the trade of the Center and the West. The Atlantic and Great Western was the first intermediate line absorbed. In fact the Atlantic and Great

Western had no proper outlet except the Erie on the east, and the Cincinnati, Hamilton and Dayton on the west. It was only an interior line, but a very important one. Uniting with the Erie at Salamanca, it covered the whole ground from Salamanca to Dayton, something like 450 miles. It is understood the Erie bought this road. The next operation as reported by the newspapers, was to have the new road from Columbus to Union and from Union to Logansport, with we presume, the connecting link into Chicago. Thus the Erie makes the Chicago connection.

Just now we hear the Erie has leased the Cincinnati, Hamilton and Dayton road, which makes its Cincinnati connection. With the Ohio and Mississippi road the Erie has close connection, which, we presume, will terminate with leasing or buying of this road by the Erie; then the St. Louis connection will be made. St. Louis has a direct route over the Kansas (or E. D.) branch of the Pacific road, and is driving a road to make direct connection with Omaha. Then the Erie Road, if all is done that is reported, will have accomplished all that an Eastern trunk line can do. It will have made its *own line* from New York to Cincinnati, St. Louis and Chicago, and through them to the Pacific ocean, and to the South-west. It is a grand prize, and so far the Erie has shown more ability and sagacity than its New York competitors. Let us now turn to another great trunk line, heretofore financially the most successful in the country: This is the PENNSYLVANIA RAILROAD. After absorbing all the roads and canals of Pennsylvania, of any moment, it has recently bought the Fort Wayne and Chicago line, which completes its entire line from Philadelphia to Chicago. Now we hear that the Pennsylvania road has bought the Cincinnati and Zanesville road, which connects at Newark with the Steubenville and Pittsburgh road, already controlled by the Pennsylvania, and thus it has got a new line to a point 36 miles from Cincinnati, in the Little Miami, which also runs in connection with the Pennsylvania, and thus the Pennsylvania made its line to Cincinnati. We believe the Cincinnati and Wilmington road was bought very cheap, and, therefore, it is not improbable that road may be used for a new Indiana connection. If it be true that the Union and Logansport has passed into the hands of the Erie road, it will be necessary for the Pennsylvania to seek a new connection for central Indiana. We have heard that the Pennsylvania road intends making the road from Morrow to Hamilton, (25 miles), which will continue the Zanesville road to Hamilton, and then by the Junction road to Indianapolis, which will make a continuous road from Philadelphia through central Indiana. This is very likely to be true, although we have heard it contradicted. We presume the Pennsylvania road has not made its mind up what

is to be done with the Zanesville road. One thing which might be done, is to continue it to Cincinnati, and thus give to the Pennsylvania road an independent line from Philadelphia to Cincinnati. However, we think the first suggestion more probable than this.

In the meantime, we do not see any new movements on the part of the New York Central, and we are told that the Lake Basin is enough for its ambition. Perhaps so, but if the track is left open in the Ohio valley to the other lines the New York Central will become second-rate in importance. As the matter now stands the Erie seems to have the largest share in these gigantic monopolies. If we are right in our idea of what the Erie has bought and leased, the aggregate number of miles in its control will be *near two thousand*, and the aggregate of its gross receipts will come to *near forty millions per annum*. The Pennsylvania road will come but little short of it. Two years ago the aggregate receipts of the Pennsylvania road were *near sixteen millions*, and with its new additions it will be greatly increased.

Such are some of the new operations in Railroads, and they are certainly on a grand scale; but they will not be as grand as our CINCINNATI AND MACKINAW road, which we confidently expect to be finished entirely from the Straits of Mackinaw to the Cape of Florida. It will be a grand thing to ride, in three or four days of winter, from the ice-bound north of Lake Huron to where the orange blooms in the glades of Florida! What a country this will be when we get into a car in Passamaquoddy Bay and roll on through cities, prairies, planes and mountains, to the Pacific, and then leave Mackinaw for the keys of Florida. What a country! How magnificent! How it looms up on the horizon of the future?

Chesapeake and Ohio R. R. in the London Market.

The English advertisement of this company offers the bonds of their road, \$2,000,000, at seventy per cent. of their par value; and in it they state "that the line will be the shortest from the Atlantic to the Northwest, and that the maximum grade will be only 29½ feet to the mile, and that "the curves, too, are no less favorable. Sixty per cent. of the whole line is stated to be straight. On the curved portion the minimum radius is 1,000 feet, and of this minimum there are only 2½ miles—scarcely one per cent. of the whole distance.

"The line runs through the most populous country of Virginia and West Virginia, and when it reaches the Ohio river, it will have the advantage of an enormous western, south-western and north-western traffic already made to its hand. The line will have three termini on the waters of the Chesapeake, and two on the waters of the Ohio. The mild climate is favorable to a moderate rate of working expenses."

Pacific Railroad.

New Mode of Subsidizing.

The idea of securing the endorsement of the Government upon the bonds of these roads that they may be readily capitalized in the money markets of the world which was promulgated in the "RECORD" of last week, seems to meet the approval of many of our members of Congress and the enterprising press of the country.

Mr. WINDOM, of Minnesota, on the 19th inst., introduced a bill to Congress in behalf of the Northern Pacific road, which provides that the Government shall guarantee the *interest only* on one-half the estimated cost of the road, and that this sum so guaranteed shall be represented by bonds of the Company secured by a first mortgage upon all the property of the Company, and this mortgage made to the Secretary of the Treasury of the United States as an indemnity against liability upon the guaranty.

The bill further provides, that the compensation for the services of the road in transporting Government troops, supplies, munitions of war, &c., are to be retained by the Government to meet any deficiencies upon the part of the Company in the payment of such guaranteed interest; and in the event that this sum is not sufficient for the purpose, then the Secretary of the Treasury is authorized at any time to collect one-third of the gross earnings of the entire road until the whole deficiency is made good.

And as a security to the purchaser of these bonds that the principal will be paid at maturity, it is provided that two per cent. of the gross earnings of the road shall be paid into the Treasury of the United States, which is to be invested as a sinking fund, and exclusively applied for this purpose.

These are the essential features of the bill. Wherein there can be any objection to it on the part of the Government we are unable to see. This measure appears to be the perfection of all the schemes that have yet been devised for obtaining Government subsidies to these national projects, and to have been developed only upon a thorough examination and discussion of objectionable features in the gratuities to the Union Pacific scheme.

In all this discussion there has appeared no objection to the construction of two more of these great thoroughfares. Indeed, their value, nationally, locally, and every other way has been more than conceded, it has been expressed by every one denouncing further grants, but the great difficulty has been to construct them, and whether it is not better, for a time, to forego all the advantages these projects will yield than to open up a system of fraud upon the national treasury and the public domain and burden the people with increased debt, to build up a few colossal individual fortunes, is a serious question.

To set aside these objections, Mr. WINDOM's bill was drawn, and that it does so effectually, and at the same time complies with the necessity for the immediate opening of work upon these lines, a critical examination will, we think, conclude.

If there is any objection to this measure, it is an excessive care of the government interest, at the expense of the Company's strength to meet the emergencies that occur in all such undertakings, that are in the beginning unseen and unestimated. Yet, as the government stands in the relation of an endorser, it comes under the strict commercial rule that demands the amplest security the endorsee can give, and that good faith on the part of the guaranteed grants.

Careful estimates show, that the government is now required to pay \$6,000,000 annually, for transportation over the sections of country these roads are to pass, and to supply a demand that can be better done and largely increased by these roads.

This is a sum much beyond the amount of the government guaranty, and a further safety in the event of the Company's deficiency.

Such a policy, it is urged, will place the Company in such good standing, as to give it credit in the money markets, and thus enable it to obtain all the further means necessary to construct the road at the same rates that money can be had by first class roads passing through a densely populated country.

It will compel a rigid economy in the construction and management of the work.—Certainly a much needed reformation. At the same time it secures the construction of the road within a reasonable period, and produces all the benefits to the country that are claimed for it; whilst the public lands along its route are enhanced in value for the profit of the government, the national debt is not increased a dollar, and the country is not subject to the imposition of Commissioners without intelligence upon such works, and of susceptible pecuniary virtue, and whose reports cost the country thousands of dollars to publish, and send abroad, to tell the world how easily and gloriously the people have been humbugged.

A correspondent of the New York Herald speaking of this method of subsidizing, says: "This is claimed to be the inauguration of a new policy, and while it does not increase the public debt, or require the issue of government bonds, it so extends the aid of the government as to insure the prosecution of the enterprise without danger to the public burdens, or of hazarding the public credit."

Similar sentiments have been expressed by other leading organs of the country.

Even Mr. GREELEY's opposition to government subsidies is overcome by this new policy.

In a comment upon an able article in the *Tribune* of the 20th upon the head of "Do

we need two more railways to the Pacific?" Mr. GREELEY expresses his appreciation of these projects, as follows:

"We fully agree that the National wealth will be largely and rapidly augmented by the building of these roads, that the annual product of our mines will probably be doubled, and that our Public Lands (which Railroad grants are said to sequester to private or corporate use) will really be quadrupled in value, and settled many times as fast as they would be in the absence of the roads. The Government's grant of public lands in aid of the Central line, so far from diminishing the area of available public lands or their value, has largely increased both; and it would have increased them far more had not most of the lands traversed by this road been absolutely barren and worthless. The friends of the proposed roads can say nothing to this effect that we will not heartily indorse."

And therefore he says: "Now look at the other side," which look results in these items, the first of which tells the amount of our present national debt; the second asserts that the burden is soon to be reduced by a system of funding, &c., and the third says, "the first duty of the government is to establish its own solvency," and that it has no business to be lending its credit till "it has proved its right to credit."

All these reasons and their natural outgrowths are why further subsidies to Pacific roads should be refused.

Then Mr. WINDOW's bill meets the Tribune's case exactly. If we can build these roads without issuing more bonds, or adding to the public burden, in principal or interest, but simply with the use of the national name, we can settle a section of country, that otherwise will remain a wilderness, we can bring into market the whole of the public lands at double the price that will otherwise be without a purchaser; we will develop the agricultural and boundless mineral resources of that vast region that otherwise will continue to be valueless, and thus in lieu of adding to the public burden will add to its weal, so bountifully, that its present debts can be easily paid, and the fears of the Nation's creditors dissipated forever, and the bravest of repudiationists put to shame.

Let the press therefore speak out and endorse this new policy, and our thinking members of Congress make themselves wise upon all its details and workings, and all interested go to work to this end with one hearty good will, and the present session of Congress will start into life these grand national undertakings.

SHERMAN'S RAILROAD BILL.—On Thursday last Mr. SHERMAN, for some strange reason not set forth in the published proceedings of Congress, moved to strike from his railroad bill, the routes to Cincinnati and Cleveland, thus leaving the line to New York only to be chartered.

It is thus the *West* is sacrificed to the East. Wherefore?

Report of the Commissioner of Railroads and Telegraphs of Ohio.

The second number of this report has been sent us by Commissioner WRIGHT, and we have perused it with more than usual interest. It is a complete, well arranged and intelligent exhibit of these most important enterprises to the State from which any one interested in these improvements can, at a glance almost, learn the history, progress, condition and management of any road or telegraph in the State. Besides the Commissioner has given us the origin and history of railroad legislation in Ohio, and the laws now in force touching these works. These are very interesting, and will pay for a careful reading as well as amuse the reader with the queer ideas entertained about the influence and capacity of railroads.

From the report we collate such matter as we have room for and as will interest, we think, our general readers, as well as those who make railroading a profession.

There are thirty operating roads in Ohio that have cost \$167,036,614. These earned during the past year \$47,118,722, and expended for operating, material, &c., \$32,920,034. They paid into the State Treasury \$1,087,270. All the trains have run 71,500,000 miles.

There has been killed, of animals, 2,402, or one for every 30,000 miles run.

They carried 9,460,000 passengers, and of these only 9 were killed—or one passenger to the one million carried.

Of the employes there were 36 killed, and 27 of them by their own misconduct, and 9 from causes beyond their own control.

There were 49 persons killed and 23 injured from riding or walking upon the track, and under the head of miscellaneous 12 were killed and 11 injured.

The total number injured is 164, of these 41 were passengers—the balance employes.

There were 700,000 miles of running without any ones being killed or injured in any way.

There are 24 Companies organized in the State, without living roads. Some of these are suspended, whilst others are actively engaged in completing their works.

There has been 197 miles of new iron laid down in the State within the year.

The amount of wood consumed is 622,872 cords, and of coal 264,463 tons.

There are 469 miles of road yet unfenced in the State.

The companies own 1323 engines, and of passenger cars 808, and of express baggage cars 397, and of freight cars 20,511, and of other cars 2,234.

The number of persons employed upon roads in Ohio is 19,884.

There are 746 railroad bridges in the State. Of these 18 are of iron, 65 of stone, 760 of

wood, and 46 have been built new within the year.

The average cost per mile is \$51,301.17.

The Companies have paid for right of way \$37,280,363.

The amount of debt for each mile of road is \$24,568.96.

The average amount of stock and debt per mile is \$56,309.32, or a total of \$183,343,149.89.

The amount of capital stock paid in \$172,047,542. Of stock due unpaid \$2,138,850.

These facts are enough to show the immense amount of labor the Commissioner has performed in gathering the data for such conclusions.

The value of these exhibits is very great to the State and to the people as well as the Companies themselves, and will form the basis of such reforms as may be necessary to promote the better prosperity of these great enterprises.

The National Railroad.

In the bill introduced into the Senate by Mr. Sherman, of Ohio, are provisions for the construction of roads from the city of Washington, by which that place will be connected with the North, South, and West, by routes independent of the States that hem in the District of Columbia.

This measure was much talked of before the war, and occasionally a spasmodic effort was made in Congress to bring it about, but for some reason it was never thoroughly considered and disposed of. And since the war, at each session of Congress the agitation has been renewed, gradually gathering strength until it has assumed its present shape in the hands of Mr. Sherman.

The failure of all these efforts has been attributed to the great activity and influence of the B. & O. company, which control the present entrances into the city from the North and West, and now, it is said, this same company is making the most strenuous efforts to defeat Senator Sherman's bill.

We think the complaint against the B. & O. company comes louder from the Capital, because the company discriminates against it in favor of Baltimore, than from the traveling public, who find all the conveniences and accommodations that the railway world affords given them by this road. If this is true, a discussion of Mr. Sherman's bill will bring it to light, and it will fail, as the great traveling public care little about the troubles of Washington city speculators or commerce.

The fight, however, promises to be a pretty severe one. The B. & O. company are strong in all the means to win, and the game is worth a desperate effort. Whilst on the other hand there seems to be a determination on the part of Congress to break up the restrictions on

business, which it is claimed are imposed upon it by the States of New Jersey and Maryland, in their legislative favoritism to their pet corporations, and make the Nation's Capital independent of these great companies, and open to the advantages of a sharp competition.

Personal.

—E. G. Hamlin, President of the Richmond and Newport News Railroad, is at the Burnet House.

—Rush R. Sloane, President of the Cincinnati, Sandusky and Cleveland Railroad, made our city a flying visit this week, upon business connected with his road.

—Frank Lord, who for fifteen years has had charge of the ticket department of the I. C. & L. Railroad, and has won a deserved popularity, has resigned, and is about to engage in other business. We are sorry to lose so efficient a gentleman from the Railroad interests of our city, but we are sure he will be equally useful and popular in any new avocation in which he may engage. Mr. A. E. Clark, who has been Mr. Lord's chief clerk for many years, is promoted to the head of the department. This is a well-merited reward, and will give satisfaction to all persons interested.

—W. H. King, general ticket agent of the Louisville and Nashville Railroad, was in our city a few days this week, attending to the business of his road. Mr. King is an active and thorough business man, and devoted to the welfare of the company he is serving.

—We had a call from our jolly friend C. P. Atmore, general southern passenger agent of the L. & N. Railroad. Mr. Atmore is an experienced officer, with every natural qualification for his position, and is making friends for his company wherever he sojourns.

—J. W. Rockwell, general ticket agent of the Nashville and Decatur Railroad, made us a brief visit a day or two since, and reports flattering business prospects in his region of country.

—J. H. Potter, well known to our people as a railway operator, left here on Thursday last for Iowa, where he has interests with different railroads.

The receipts of the Western Union Railroad Company, for the week ending January 14:

	1869.	1868.	Increase.	Decrease.
Freight.....	\$6,059 08	\$5,907 72	\$151 46	.....
Passengers.....	2,315 80	2,373 85	\$441 95	.....
Express & Tel.	350 00	600 00	.....	250 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$9,599 98	\$9,256 57	\$353 41	\$250 00

Receipts from January 1, to January 14:

1868.....	\$18,450 33
1869.....	18,410 67
Decrease.....	\$39 76

Operations of the Erie.

A Cleveland paper speaking of the election of the Cleveland and Pittsburg road, on the 6th inst., says:—

In this election the issue was between the interests of Erie and those opposed thereto. Since the lease of the Atlantic and Great Western Railway by the directors of the Erie road, it has been the object of the latter to effect an arrangement by which a broad gauge line could be run into the Union Passenger depot, thereby making close connections with other lines. This could only be accomplished by securing a board of directors for the Cleveland and Pittsburg road in the interest of Erie. This done, a third rail laid on the track of that road from Ravenna or Newburg to this city, would afford the desired facilities. It is understood that the object sought after has been gained in the election, the board chosen on Wednesday being in favor of granting to the Erie Railway the privilege of laying the third rail and running trains over the Cleveland and Pittsburg track, into the Union depot. The election was one of unusual importance, and the result was awaited with no small degree of interest by the railroad men of this and other cities.

At this election the directors presented a full report of the condition of the road from which we condense the following exhibit:

The gross receipts of the year are stated at \$2,493,213 60, an increase over the previous year of \$194,891.92. The expenses are given at \$1,470,425.54, a decrease from 1867 of \$18,382.29, notwithstanding a largely increased tonnage. The company paid during the year in mortgage interest, lease of track of Pittsburg, Fort Wayne and Chicago Railway, and mortgage bonds of 1900, in the aggregate \$424,884.65, leaving as the net income of the year's business \$597,903.41. The company added materially to its facilities during the year, and begins the year 1869 with the promise of still better results.

A bigger operation of this great corporation is the contract made with the C. H. & D. Company on the 11th inst., the substance of which we give below—

1. The Cincinnati, Hamilton and Dayton Company, party of the first part, agrees to lease to the Atlantic and Great Western Railway Company, party of the second part, the Cincinnati, Hamilton and Dayton, the Dayton and Michigan and the Cincinnati, Richmond and Chicago Railroads for the period of fifty years, commencing on the 31st day of March, 1869, with all the property thereto belonging. The said lease to carry with it every right and advantage, by way of contract or otherwise, which the party of first part has in any other road, or property, or franchise whatsoever. And the Erie Railway Company, party of the third part, agrees to guarantee the obligations of the Atlantic and Great Western, party of the second part.

2. The party of the second part is to pay the interest on all the mortgage bonds of the C. H. and D., D. and M., and C. R. and C. Companies now issued, and also an amount equal to eight per cent. on the capital stock of \$3,500,000 of the C. H. and D. Company, free of Government and all other taxes, for the first three years; and thereafter, for forty-seven years, an amount equal to ten per cent. net. For the Dayton and Michigan, and Cin-

cinnati, Richmond and Chicago Companies, the party of the second part is, also, to pay the interest on \$765,000 of bonds to be issued, the proceeds of which is to discharge their liabilities to the C. H. and D. Company, for amounts heretofore expended in construction; and after three years to pay six per cent. per annum on the capital stock of the two companies, amounting to \$2,950,000, free of all taxes of every character whatever. Also, to pay an annual sum of ten thousand dollars to defray the expenses of keeping up the several organizations of the companies whose roads are hereby leased. They are also to pay, in cash, at cost price, on taking possession of the roads, for all supplies and materials on hand for repairing and operating the several roads, not including old rails, and not exceeding in amount \$150,000. The payments are to be made monthly; and in case any part is not paid as agreed, the party of the first part may forthwith, after the expiration of sixty days from such default, re-enter and take possession of said roads leased, without notice or legal process, the parties of the second and third parts being responsible for any damages. And, as a further security for the performance of the stipulations of the party of the second part, the Erie Company agrees that, within the period of one year from March 31, 1869, she will complete the second track of the C., H. and D. road from Cincinnati to Hamilton, and within five years to Dayton, at her own proper cost.

3. The party of the second part is to assume all obligations of the party of the first part to other roads, for rentals and all contracts with warehouse men, shippers and others, for which the said first party is bound, and the party of the second part is to have all benefits arising from such rentals, contracts, &c.

4. The party of the second part is to keep the property insured in good and solvent companies for the same amount as the property may be insured when possession is given to them, and is to pay all taxes levied on the roads and property hereby leased, as well as on the income. The party of the second part is to keep the several roads in good repair, and to leave the same in as good condition as received, and in the lease proper provision is to be made for that purpose by a clause binding the second party, and giving the first party power to repair the roads and other property at the expense of the party of the second part, if there be a neglect on their part to keep the same in good condition and repair in all respects.

5. The party of the second part agrees to develop and increase both the local and through business of the several roads, in the best way practicable.

6. The franchise is to be conveyed by the proposed lease to the party of the second part, so far as may be necessary for the operating, maintaining and extending said roads.

7. It shall be mutually agreed that if any difference of opinion should arise as to the true intent and meaning of the lease, the same shall be arbitrated by persons competent and disinterested, to be chosen in the usual manner.

8. The lease to be submitted to the stockholders of the parties of the first and the second parts, and is not to be binding unless approved by the said stockholders, as provided by their charter and the laws of the States under which said corporations were created.

Signed by the Presidents of the Cincinnati, Hamilton and Dayton, Atlantic and Great Western, and Erie Companies, in New York, January 11, 1869.

Without commenting further at this time upon this contract, we regard it as a desirable arrangement for the C., H. and D. stockholders, and expect its confirmation by them.

Cheap Railway Fares Again.

[From the N. Y. Commercial Advertiser.]

Why should railroad corporations charge so much more for transporting passengers than freight and live stock? The passenger takes himself to and from the depot, occupies comparatively little space, looks after himself and requires no care. Freight, on the contrary, is bulky, occupies considerable space, has to be handled any number of times, to be guarded, and frequently to be stored for weeks in depots and warehouses. No more steam is required to draw a ton of human weight than of freight or live stock. There is no more wear and tear on rolling stock and rails in one case than in the other. The only additional expense consists in the extra wages paid to first over second-class conductors, and in the additional finish given to passenger over freight cars.

Were passengers compelled to occupy a half and not a whole seat, so that half empty cars would not be "whirled" to and fro over the roads, and were the tariff and prices reduced so as to be within the bounds of the poor man's resources, travel would increase greatly, with no additional expense of carriage, and accompanied with largely increased revenues.

The eminent engineer, Robert Stephenson, maintained the above theory of railway management until his death. He stoutly held that any thing beyond five-eighths of a penny (or about one cent American money) per mile per passenger may be rendered profitable, even though passenger trains be only half filled. "Nothing," said he, "is so profitable, because nothing is so cheaply transported as passenger traffic. Goods traffic, of whatsoever description, must be more or less costly. Every article conveyed by railway requires handling and conveyance beyond the limit of the railway station; but passengers take care of themselves, and find their own way without cost from the terminus at which they are set down. It is true, passengers require carriages of somewhat more expensive construction than those prepared for goods; but this expense is compensated for by the circumstances that they are capable of running, and do run, a much greater number of miles—that the weight of passengers is small in proportion to the weight of goods—and that consequently the cost for locomotive power is less."

Stephenson still further substantiated his grounds in the following comparisons:

"It has been shown that 111,000,000 passengers, weighing 8,000,000 tons, have been conveyed during the past year (1854) over a distance of 12 miles, yielding a revenue of £9,000,000 sterling. This gives, at the least, 2s. per ton per mile for the weight of passengers conveyed. Coals are conveyed, in some instances, at a half penny per ton per mile. It is to be recollected that trains are usually capable of transporting at least two or three times the number of passengers ordinarily

traveling by them, and that the weight of all the passengers, in all cases, is in extremely small proportion to the gross weight of a train; as, on an average, there will be 14 passengers to every ton, and each train will readily convey 200 passengers. The cost of running a train may be assumed, in most cases, to be about 15d. per mile; therefore, 100 passengers, at $\frac{1}{4}$ of a penny per mile per passenger, would give us 5s. 2½d. per train per mile, which may be taken as about the average of train earnings throughout the year. It is obvious, therefore, that any thing beyond $\frac{1}{4}$ of a penny per mile per passenger may be rendered profitable, even if the passenger train is only half filled. Hence all directorates should look to the maximum amount of gross revenue to be derived from large passenger traffic, which maximum amount is only to be obtained by affording enlarged public facilities and temptations to travel."

We have thus, in series of articles, endeavored to convince American railway capitalists and managers that a regard for their own pecuniary interests, if nothing more, should lead them to run frequent trains (night and day near large cities), to reduce the tariff of prices, to hold out every inducement to city dwellers to locate along their routes, and to literally tempt the great middle and lower classes to travel. The experience of European roads, particularly those of Belgium, the result attending the cheapening of fares in England, and the arguments of Stephenson and other engineers, have been cited as proofs of the theories advanced by us. They are certainly deserving of the immediate attention of our large and rapidly developing railway interests.

Marietta & Cincinnati Railroad.

The total cost of this work, comprising 191 miles of main track, and 86 miles of branches, at date June 30, 1868, was:

Am't of capital stock paid in.....	\$14,620,865
Am't of funded floating debt.....	6,780,970
Total capital and debt,	\$21,410,835
Earnings for the year ending June 30, 1868:	
From transportation of passengers.....	\$390,301 30
From transportation of freight.....	839,970 33
From mail and express.....	67,973 57
From other sources..	7,229 91
Total earn'gs for year	\$1,305,475 11
Expenditures for construction and new equipments.....	\$617,562 60
Expend's for maint. of way and struct's	250,063 35
Expend's for maint. motive power, &c.	322,545 76
Expend's for transportation expenses	360,172 78
Expen's, taxes, State and National.....	64,022 60
Expen's for management, &c.....	113,521 66
Total during the year	\$1,727,868 75

Deficit..... \$422,393 64

This large deficit sum is accounted for by the expenditures upon the principal tunnels

of the line. As far as possible they have been enlarged, and arched with stone, and the work done in the best style. This renovation is to be continued until every tunnel upon the road is placed in the same substantial condition. The whole road is to be fitted up to the first-class standard; then with a bridge across the Ohio river at Parkersburg, and an independent entrance into the city of Cincinnati, both of which are already provided for, this scheme will become one of the most remunerative in the State of Ohio.

Exhibit of the Pan Handle Road.

Total cost of main line, 193 miles, and 74 miles of branch road.....	\$13,758,000 00
Earn'gs from transportation of passengers.....	\$604,850 25
Earn'gs from transportation freight..	1,483,454 46
Earn'gs from transportation of mail and express.....	101,444 81
Earnings from all other sources....	148,781 86
Total earn'gs, year	\$2,338,531 40
Expend's for construction and new equipments.....	\$298,648 04
Expend's for maintenance of way and structures...	342,631 98
Expend's for maintaining motive power and cars.....	650,867 75
Transportation expenses.....	613,992 72
Taxes, State and National.....	42,932 19
All other expenses	58,249 84
Total.....	\$2,007,322 55
Balance.....	\$331,208 88

LYNCHBURG AND DANVILLE RAILROAD COMPANY.—*Lynchburg, Va.*, Jan. 7.—The stockholders of the projected railroad to Danville met here to-day in their second session, and organized by calling to the chair R. C. Saunders, Esq., of Campbell. The attendance is a very full one. After reports from gentlemen who attended the last meeting of the stockholders of the Orange and Alexandria Company, and a general consideration of the interest and prospects of the enterprise, John S. Barbour, President of the Orange and Alexandria Company, was elected President of this company. The President in his report, speaking of the subscriptions to the stock of the Danville road, says:

"The subscriptions procured this year are as follows: Sixty thousand cross-ties at twenty-five cents each (payable in stock,) enough for thirty miles of track, \$15,000; six thousand acres of land, payable in stock, \$37,000; grain and other produce to be delivered to the contractors, payable in stock, \$8,000. Addition to capital stock this year, \$60,000. The total assets of the company may be stated as follows: Pittsylvania county bonds, \$100,000; private subscriptions procured previous to this year, \$120,000; private subscriptions procured during the past year, \$60,000; estimated value of rights of way contributed free of cost, \$80,000. Total, \$360,000."

Prospects of the Cotton Trade.

Cotton has well nigh gained its former importance as the great commercial crop of the country. The exportable surplus of the staple may now be estimated as worth \$125,000,000 in gold; which is near its average value between 1855 and 1860. The growing magnitude of this branch of the export trade renders it especially important to ascertain as nearly as possible what are the prospects as to the value and the movements of this particular staple. The premium on gold is very directly influenced by the supply of cotton bills; and the exports of other products are materially affected by the premium on gold; so that, in an important sense, the cotton movement may be said to control our whole export trade. The supply and demand, however have, during the late war, been subject to so many fluctuations, that it is difficult to form satisfactory estimates of the course of things a few months ahead; each successive year, however, the movements are assuming more regularity, while they form an accumulation of new data for our guidance.

The general tenor of reports has during late weeks, become more favorable, so that now the prevailing anticipation in this market is that the Southern crop will exceed that of last year. The injury by rains and the worm has proved less serious than was at one time expected, while the picking season has been very favorable; so that if the election and after election excitement does not interfere with the work of the freedmen, it is now believed by the better informed that an increase of about 200,000 bales upon the last crop may be relied upon with considerable confidence, which would give us a total of say 2,700,000 bales. The fact of the arrivals of cotton at the ports since September 1, having been over 90 per cent., in excess of those of last year is an indication of this improvement in the supply; and yet only partially so, for the crop this year is about three weeks earlier than last year, while in the fall of 1867 trade at the Southern ports was checked by the yellow fever. The prospects of the supply in other cotton growing countries appear to be on the whole satisfactory. There were some reports earlier in the season of injury from the rains to the plant in India, but the later advices are all favorable; and it is inferred from the fact that the bulk of the last crop was marketed when prices were high, and the area planted will be large, though we do not look for any material increase from that quarter. From Egypt, however, the supply is estimated at about 400,000 bales, as against 250,000 bales last year, while the reports from Brazil are all favorable, the high prices obtained for the last crop having induced, it is believed, some increase of planting. It would seem then that the combined supply in America, Brazil and Egypt may exceed that of the last year by say 350,000 bales of 450 lbs. each, which is equal to an addition to the world's consumption of about 7,000 bales per week. It is not to be assumed, however, that the whole of this additional supply will reach Europe. Our own manufacturers had reduced their stocks to an unprecedentedly low point before the crop began to arrive, and not only will they have to compensate for this deficiency in supply on hand, but they are likely to require an increased amount for actual consumption, to meet the extra demand naturally growing out of an improved condition of trade throughout the country generally, and especially in the Southern States. For

this reason, Liverpool is not likely to be much benefited by the enlarged Southern crop.

The present condition of stocks in Europe and of the supply afloat combined does not in the total differ very much from the same period of last year, as will be seen from the following comparison:

IN STOCKS AND AFLOAT.			
	1868.	1867.	
LIVERPOOL, Nov. 6th.	bales.	bales.	
Stock.....	426,000	571,000	
Afloat.....	284,000	226,000	
LONDON, Oct. 22.			
Stock.....	89,038	118,343	
Afloat.....	134,914	74,179	
HAVRE, Oct. 9th.			
Stock.....	50,429	80,149	
Afloat, in excess of '67.	29,835	.....
Total visible supply....	1,104,216	1,069,371	
Decrease.....	55,155	.....

There is, however, as affecting prices in this country, a material difference in the nature of the stock, the total amount of American on hand at Liverpool, at the date given above, being only 48,000 bales, against 133,000 bales at this time last year.

But, aside from this circumstance, it will be seen that the visible supply of Europe is 55,155 bales less than at the same period of last year; which requires to be set off against the probable increased supply from the new crops, if we suppose it is necessary for the present stocks to be maintained. Making this allowance, then, and supposing that the major portion of the increase in the crop of American will be required at home, it appears that Europe may anticipate results exceeding those of last year by about 200,000 bales, which would allow an increase in the weekly consumption of 3,840 bales over last year. We find that the amount taken by the trade at Liverpool last year, from October 3 to December 31, averaging 57,870 bales per week; while, for the first four weeks of the corresponding period of this year, the purchases of the trade have averaged 58,360 bales, or about 500 bales per week more. For evident reasons, however, the purchases of the trade for the last few weeks are not perhaps a fair indication of the consumption. The following is a statement of the average weekly consumption for the nine months ending October 1, of the two years:

	American.	Brazil.	W. Indian.
1868.....bales	29,414	10,736	2,042
1867.....	20,973	5,387	2,149
	East Ind.	Mediter'n.	Total.
1868.....bales	13,406	3,480	54,078
1867.....	14,852	5,844	46,205

This statement shows a weekly increase of 7,873 bales. The present price of cotton at Liverpool, however, is one-third higher than the average price during the last quarter of 1867; which does not favor the supposition that the rate of consumption during the balance of the year will keep up to the high rate indicated as above, assuming that the price remains near the present quotations.

The home trade of Great Britain appears to be steadily recovering, and the demand from the agricultural districts, stimulated by the large wheat crop, is expected to prove larger than in late years. On the Continent, there is a more assured political feeling; the grain and wine crops are abundant; and enlarged orders for yarns and goods are expected from that source. Perhaps the wants

of Eastern countries may prove moderate.—The India and China markets were glutted with goods at the beginning of this year when prices were low; and, stocks being larger than usual, there will naturally be some reluctance to buy largely at the advance in prices required by the present value of cotton. The South America markets being affected adversely by the continuance of war and by the late earthquakes, are not likely to require their average amount of manufactures. The probabilities would thus appear to favor a fair, steady demand of goods, not below that of last year, possibly above it.—*U. S. Economist.*

Steel or Iron Rails?

From the tone of articles floating around in the daily press, it would be understood that steel rails have practically proved a failure; and that railway managers are going back to the use of iron for rails, as the more economical of the two metals. So far as our observation goes, this statement is very far from the truth, although we by no means deny the fact that numerous failures of steel rails have happened. The cause of these failures is very simply stated; they have been badly made. No fair-minded person will state, after the experience of the wear of steel rails compared with those of the best quality of iron on the London and Northwestern Railway, and on a great many roads in the United States, that steel rails have proved a failure. The resisting and wearing qualities of a properly made steel rail, under heavy and fast traffic, have been proved to be more than twenty times those of iron rails; and if now steel rails do not show these, or like results, what more does it prove than that the later rails are not properly made? Railway managers are themselves in fault if steel rails fail. They either do not pay a fair price for them, or if they do, they do not take the necessary pains to test them before they lay them in the track. In buying steel rails, it is easy enough for the railway company to get a guaranty from the manufacturer against breakage. All the leading steel rail manufacturers will give this guaranty, if the purchaser will pay a fair market price; but if he will not, and prefers to pay ten or twelve dollars less per ton than a good article is worth, then he will very likely get a lot of *shoddy steel rails*, that will prove less serviceable even than the common class of iron rails. The occasional fracture of a steel rail of even the best make is no argument against their general value. No one can tell to what improper influences the particular broken rail has been submitted, either in the manufacture, or in handling on the track; it may have been over-heated by a careless workman, or it may have been nicked by a cold-chisel to a square shoulder in the flange to receive the spike, or strained by punching the hole for the bolt of the fish-plate. Whoever is at fault will not be very likely to come forward voluntarily and own to any act of omission or commission; but if the manufacturer is responsible for the breakage, it becomes his interest to find out and expose the fault, and to guard against it in the future. Steel rail manufacturers know enough of the peculiar qualities of this metal, to be aware whether or not they can give a guaranty of its endurance; and if they do it, the railway company may be pretty certain it gets a good article, or if it proves to the con-

trary, it can hold the manufacturer responsible.

The greater stiffness of the steel rail of equal section to that of iron, the absence of any tendency to lamination or pounding out at the ends, and its incomparable greater wearing qualities, all go to prove that its use on railways having a large and fast traffic, is a great and substantial improvement over iron, and we deprecate the unkindly criticism which some, even of the engineering journals, seem disposed to join in, evidently without the writers giving the matter their personal attention and inquiry. We have no fear, however, that our better class of railway managers will be induced to give up so great an improvement after they have had the advantage of a proper experience of the benefits of using really good steel rails. If the adverse criticism leads the great majority of them to be more careful of the character of their purchases, leads them to institute proper tests, compare observations and experience, and generally give the subject of rails and the track, the amount of attention they deserve, it will be a substantial advantage to all concerned. Many of the road-masters seem to have but little idea of the characteristics of a steel rail, or the manner in which it should be fitted into the track. The principal charge brought against the steel rail is its brittleness; its tendency to break where the flanges have been notched for the spikes, or at points where it has been cut for fitting at the joint, or at other points following the blow of the driving wheel. The last, is always the fault of the manufacturer; but the others clearly result from improper methods of fitting the joints and fastenings. No steel rail should ever be notched to a square shoulder to receive a spike, as the notch so made is the commencement of a fracture, which under the continued action of the wheels will follow clear through the rail—the steel metal in this particular resembling glass; the spike notch should always be cut in an elliptic or semi-circular form. Punching, or even drilling holes, through the web, for fastening fish plates, or any other interference with the general structure of the rail, we think a mistake for obvious reasons; but if holes are to be made, let it be done by drilling; if the rails are to be laid in cast iron chairs, some slight elastic substance should be placed between the rail and chair; on the Boston and Providence Road they have been using thin blocks of hard, well-seasoned wood, with good results. Before putting the rails into the track, they should be thoroughly examined for any check or cut, and if any are found, the rail should be rejected, as any very slight, sharp indentation, will be very likely to be quickly followed by breakage. When the rail is made hard enough to secure good wearing qualities, but still soft enough to prevent any undue brittleness, by following these general directions the best results, both as to safety and economy, will follow the use of steel rails. We hope before long to be able to present the results of the wear of American made steel rails under heavy traffic, and every friend of home manufactures would think it a great misfortune, if, after the expenditure of so much capital for the production of these, the steel rail itself, should prove valueless in competition with iron. We have no fears of this result, however, and with the experience of the railway public, both here and in Europe, we may confidently expect that the production and consumption will steadily enlarge from year to year.

The Public Debt.

The following statement shows the condition of the public debt on January 1, 1869, compared with December 1, 1868:

Debt bearing Coin Interest. Dec. 1, 1868.	
5 per cent. Bonds.....	\$221,584,400 00
6 per cent. Bonds, 1881.....	3,267,300 00
6 per cent. 5-20 Bonds.....	1,602,350,400 00
	\$2,107,836,100 00
Debt bearing Currency Interest.	
6 per ct. Pac. R. R. Bonds.....	44,317,000 00
3 per ct. Certificates.....	58 140 000 00
Navy Pension Fund at 3 per cent.....	14,000,000 00
	116,477,000 00
Matured debt not present'd for payment.....	
Debt bearing no Interest.	\$8,245,883 64
U. S. Notes.....	356 021,073 00
Fractional Currency.....	33 875,264 17
Gold Certif. of Deposit.....	23,355,840 00
	413,152,181 17
Total Debt.....	\$2,645,711,164 00
Am't in Treas., Coin.....	88,425,374 54
" " Cur'y.....	18,353,746 13
	106,679,320 67

Am't of Debt, less Cash in Treasury.....	\$2,539,031,844 14
Debt bearing Coin interest. Jan. 1, 1869.	
5 per cent. Bonds.....	\$221,589,300 00
6 per cent. Bonds, 1881.....	2,367,400 00
6 per cent. 5-20 Bonds.....	1,602,568,650 00
	\$2,107,835,350 00
Debt bearing Currency Interest.	
6 per ct. Pac. R. R. Bonds.....	50 097 000 90
3 per ct. Certificates.....	55,865,000 00
Navy Pension Fund at 3 per cent.....	14,000,900 00
	110,962,900 00
Matured debt not presented for payment.....	
Debt bearing no Interest.	\$7,463,593 64
U. S. Notes.....	316 021,073 10
Fractional Currency.....	34 215,715 64
Gold Certif. of Deposit.....	27,036,020 00
	417,272,808 64
Total Debt.....	\$2,652,533,672 28
Am't in Treas., Coin.....	98,703,368 91
" " Cur'y.....	13,463 092 12
	111,826,461 03
Am't of Debt, less Cash in Treasury.....	\$2,540,707,201 25

The changes in the details of the debt during December, have been as follows:

Total net debt.....	increase, \$ 1,675,357
Coin on hand.....	increase, 10,337,994
Coin certificates.....	increase, 3,780,180
Currency on hand.....	decrease, 5,190,854
Over-due debt.....	decrease, 782,880
Pacific R. R. bonds.....	increase, 5,760,000
3 per ct. certificates.....	decrease, 2,275,000
National Currency.....	increase, 340,000

The total net debt has increased during the month \$1,675,000. The increase is due to the addition of \$5,760,000 to the issue of bonds to the Pacific Railroad. Among the items of debt liquidated are \$782,000 of over-due obligations, and \$2,275,000 of 3 per cent. certificates. Contrary to expectations, the currency on hand has been increased \$5,190,000, although the Treasury sold about \$2,000,000 of coin at the beginning of the month. As only about \$3,000,000 of obligations have been liquidated, it follows that there has been a deficiency of internal revenue.

The chief item of interest is the condition of the coin balance. The total amount of gold in the Treasury is \$98,763,000. Of this amount \$27,036,000 belongs to public depositors; the balance of \$71,627,000 being owned by the Treasury. On the 1st inst., \$32,000,000 of this amount had to be appropriated for the payment of January interest; so that, at the beginning of this month, there remained only about \$40,000,000 of coin which the Government could consider properly its own.

This amount is less by \$23,000,000 than that so held by the Treasury in 1868, and \$36,000,000 less than in 1867. This heavy loss is, in the main, to be accounted for by the payment of \$14,700,000 of the bonds of 1867 and 1868, and of \$7,200,000 on account of the purchase of Alaska. This gold thus lost from the Treasury has not remained upon the market. There is now about \$7,000,000 more of public gold deposited in the Treasury than a year ago, and the amount in the city banks shows a similar increase; so that the balance of \$16,000,000 has gone out of the country. This is not a satisfactory movement, taken in connection with the predominant sentiment in favor of an early resumption of specie payments.

Wire Rope.

At the Havre Exhibition, which has lately closed, wire ropes were purposely broken to ascertain the highest strain they are capable of bearing. A correspondent writing to a London paper, gives an account of the results of tests which were made in the presence of jurors and exhibitors and a large number of gentlemen interested in the use of wire ropes. He says:—"Messrs. J. T. and F. Scott's wire rope beat all competitors, including the contractor to the French Navy, and was awarded the prize medal. Thus a piece of 4 inch steel wire rope stood the enormous strain of 40 tons, and slipped through the splice without breaking. This piece of steel rope was greatly scrutinized by all present, and was admitted to be one of the finest specimens of material ever seen. The next tested was a piece of iron wire rope 3½ inches circumference, which resisted the strain of 35 tons without breaking, and was deservedly praised for its symmetry and finish in manufacture by all parties. Next a piece of wire rope 3¼ inch circumference stood the enormous strain of 24 tons without breaking. It may be stated that the great strain put upon each of the above wire ropes caused the sizing to break, otherwise the ropes would have been proved up to their breaking strain. Next a piece of wire rope 2½ inch circumference broke at 14 tons. The guaranteed breaking strain of the above sized rope is 9 tons. The testing of the ropes was done in a most impartial manner by the jurors, and we must say, looking at the favorable results and the superior manufacture of the ropes in question, that if colliery proprietors and consumers were to buy their ropes direct from the manufacturers, and that if every manufacturer were to send out such ropes, we should, without doubt, have fewer accidents at our collieries."

STEEL RAILS—Advices from Essen state that the low rates current for Bessemer steel rails in that district have excited the most bitter complaints on the part of Prussian industrialists. Thus, at an adjudication for the Lower Silesian (Markisch and Berlin) Railway, Herr Krupp, of Essen, undertook to supply Bessemer cast steel rails at £14 6s. 6d. per ton. The manufacture of steel is attracting more and more attention among Prussian industrialists. Thus, it is announced that the New Scotland Company is about to occupy itself with the production of cast steel; this society has for some time produced with success puddled steel rails.

THE ELEVATED RAILROAD.—A number of modifications have been lately made in the manner in which this road is to be operated. The endless belt to which the cars are to be indirectly attached, instead of running beneath the pavement in its return course, as at first intended, will be carried above. To this endless belt are to be affixed small trucks, as they are called, and beneath each carriage a flange capable of being turned to either side. When this flange is allowed to stand perpendicularly, the truck, as it arrives beneath the car, catches it and carries the car along. When it is desired to stop the car the flange is turned aside, the truck of course slips past it, and the car stops. A spiral spring attached to the flange prevents any unpleasant shock at starting.

The wheels of the cars are a combination of iron and wood, the flange and outer portions being of iron, and the part coming in contact with the rails of wood. Thus little or no noise will be made by the passage of the cars, while the motion will be delightfully easy.

The company have laid foundations for the road, as far up as Thirtieth street, and have the superstructure ready to put up for that distance. In a few weeks a public trial trip will be made over the road already built, which extends from the Battery to Cortland street.—*New York Times*, January 13.

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It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-end package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

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1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

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When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS,

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

MITH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELLES, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
C. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
Aug. 2, tk.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, with-
out piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

locomotive can raise water, with its own steam, to fill
its tender in the same time as from an ordinary tank;
thus dispensing with tanks, pumping ma-
chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

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48 Dey Street,
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VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W.
Railway, on Saturday Morning, by the 6:00 a.m. Lightning
Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next
day, Sunday

2 Through Lightning Express Trains for New York,
Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6:15am.....	7:10pm
" Dayton.....	8:35 ".....	9:30 "
Arrive West Salem.....	1:50pm.....	4:53am
" Leavittsburg.....	4:55 ".....	7:35 "
" Meadville.....	7:35 ".....	11:10 "
" Susquehanna.....	7:48am.....	11:29pm
" Paterson.....	2:25pm.....	6:03am
" New York.....	3:15 ".....	7:00 "
" Boston.....	5:45am.....	4:45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
night instead of Saturday night. All other
Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely
new, of the most modern, substantial, and approved de-
scription, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

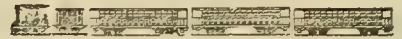
Apply in Cincinnati at New Depot of Cincinnati, Hamilton
and Dayton Railway; or at northeast corner of Broadway
and Front streets, and at No. 80 Fourth street, nearly op-
posite Post Office. Also at any of the principal Railroad
and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express
Trains will leave New York daily (Sundays excepted) via
Central Railway of New Jersey, and Allentown, leaving
Pier 15, foot of Liberty street, North River, at 7:00 and
9:00 a.m. and 8:00 p.m. On Sundays, one Express Train
at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two
Hours' Time over other Lines, with but one change of
cars to Chicago or Cincinnati, and but two to St. Louis.
Passengers front the East by Sound Boats or by Rail in the
morning, will have time for Breakfast before leaving the
City. Fares always as low as by other Lines.
State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. B.)
7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives
at Harrisburg 2 p.m., Pittsburg 12 night
9:00 a.m.—MORNING EXPRESS, for the West. This
train leaves New York Two Hours later than other Lines,
and arrives at principal places West at the same time.
12:00 m.—WAY TRAIN, connecting at Easton with
Lehigh Valley Railway to Mauch Chunk; at Reading with
Philadelphia & Reading Railway for Pottsville, arrives at
Harrisburg at 8:30 p.m. Without change of cars from
New York to Harrisburg.
8:00 p.m.—EVENING EXPRESS, for the West with
but one change to Cincinnati or Chicago, and but two to
St. Louis. This train leaves New York Two Hours later
than other Lines, and arrives at principal places West at
same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives
at New York at 6:00 a.m. next day.
3:00 a.m.—EXPRESS TRAIN, from the West, leaving
Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.;
Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at
7:09 a.m. Through cars from Pittsburg to New York.
9:05 a.m.—FAST LINE, from the West, leaving Pitts-
burg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Read-
ing at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at
1:10 p.m. Through cars from Pittsburg to New York.
7:25 a.m.—WAY TRAIN, from Harrisburg, passing
Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton
at 1:35 p.m. Through cars from Harrisburg to New York.
Arrives in New York at 5:20 p.m.
2:10 p.m.—FAST MAIL, from the West, leaving Pitts-
burg at 3:10 a.m.; passes Harrisburg at 2:10 p.m.; Read-
ing at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at
7:20 p.m. Through cars from Harrisburg to New York
Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7:00 A. M.	9:10 A. M.
Springfield & St. Joseph Ex.....	12:00 P. M.	4:30 P. M.
St. Louis & Chicago Ex.....	4:55 P. M.	12:15 A. M.

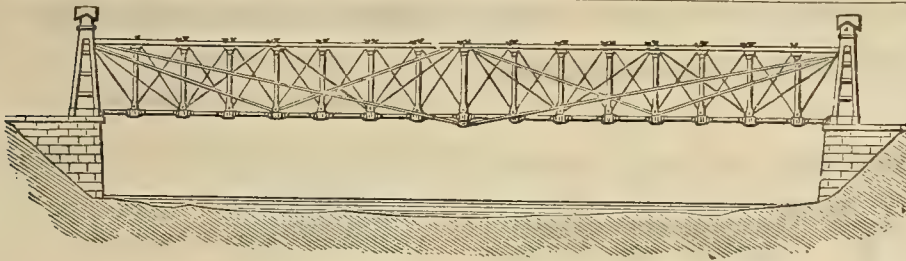
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5:15 P. M.	5:05 A. M.
Harrison Accommodation.....	10:10 A. M.	2:25 P. M.

Through Tickets can be obtained at the Burnet House-
Spencer House and Gibson House Offices; also at the
Depot. The Passenger Depot of the Indianapolis & Cin-
cinnati Railroad is within a few squares of all the pri-
ncipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

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M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.,

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and all work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and construction of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

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STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

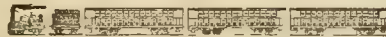
Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

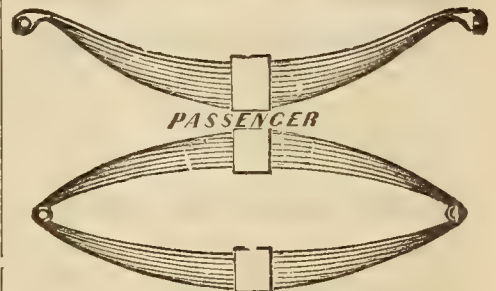
MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and best material, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to tent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	6 45 A. M.	
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots. East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymr Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cin'ti,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vin Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

O. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10 50 pm
Indianapolis and Cairo Express.....	7.20 am	2 30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am
No change of cars between Cincinnati, St. Louis and Chicago.		

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Cornersville and Cambridge City.....	4.00 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & O. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, N. Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same. &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY 4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M. Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS.—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at time for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD, } Editors
T. WRIGHTSON.

CINCINNATI:
THURSDAY, JANUARY 28, 1869.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.
One square, single insertion..... \$ 1 00
" " per month..... 3 00
" " six months..... 12 00
" " per annum..... 20 00
" " column, single insertion..... 5 00
" " per month..... 10 00
" " six months..... 40 00
" " per annum..... 80 00
" " page, single insertion..... 15 00
" " per month..... 25 00
" " six months..... 110 00
" " per annum..... 200 00
Cards not exceeding four lines, \$5.00 per annum.
WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:30 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Indianapolis, Rushville and Connersville Mail.....	7:00 P. M.	10:45 A. M.
St. Louis Express.....	2:30 P. M.	5:10 P. M.
New Castle and Cambridge, City.....	7:00 A. M.	10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo and Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

PACIFIC RAILROAD. Guarantee of Interest.

NO RISK TO THE TREASURY.

NATIONAL IMPORTANCE AND FINANCIAL ECONOMY OF IMMEDIATE CONSTRUCTION.

In our article of January 14th, we resurrected the project of Mr. RAMSEY, to aid in the construction of the great works of internal improvement by the guaranty of the *interest only* on the stock or bonds to a limited amount. This theory is not a new experiment—an untried problem—but a demonstrated fact in the experience of other countries. More especially has it been successful in developing the resources of British India. It is contended, however, that in India it was a "dead sure thing," as all the routes are through a densely populated country, insuring sufficient traffic to render the guarantee a mere bagatelle, while the projected American lines are through a wilderness, where no traffic exists, and that will require years to develop. Without undertaking to demonstrate that there is, or will be sufficient business to support a road, or rather, as we have so often suggested, and now insist as necessary for the development and interest of the country, *three through roads* to the Pacific, we believe no one will question the fact that the absolutely necessary Government transportation of troops, munitions of war, and mail matter, at one-half the cost heretofore paid for the same service, will amount to sufficient TO PAY THE INTEREST on \$100,000,000 of Bonds. Or, even suppose the Government should contract for the *next ten* years to pay the average cost for the like services of the *past five* years, and that this sum shall be sacredly devoted by the Treasury as a fund out of which to pay the interest guaranteed by the Government on the bonds of the roads to the amount of \$25,000 per mile, who will pretend that the Government has *run any risk*, or suffered *any real loss*? If the roads are not built, the Government will have to pay for the transportation by mules and oxen; it will not be *saved* to the Treasury. The service has to be performed, and the money paid for it. It is not in the experience of the Government recorded that any contractor ever did do services without pay; and contractors are no more patriotic now, than heretofore. Hence, as the money must be paid, if we can, *at the same cost*, secure the construction of the continental railroads instead of trudging on in the antiquated ruts of the past, we have sufficient confidence in the good sense and patriotism of Congress to believe that they will so direct, and under proper safeguards, grant this asked for aid.

Let us for a moment look and see what are the real facts in the case. In 1867, the Government actually paid to the Kansas Pacific Railroad \$511,908.24 as shows by the report

of the House Committee, on Military Affairs, last May. The committee says:

"That they have carefully considered the statements therein made, and have found them confirmed by the following facts, drawn from official record:

"The cost to the Government for transportation on the Union Pacific Railway, Eastern Division, in 1867, was..... \$511,908 24
"If the military supplies had been wagoned, and the mails carried by stage, and the troops marched, (taking the average rates at which the Government made its transportation contracts for that year, as shown by certificates of the Departments of the Quartermaster General and Postmaster General,) the cost would have been..... \$1,358,291 06

Saving to the Government in 1867..... \$846,382 82

The following table shows the comparative cost and saving to the Government in a more detailed form, although the same results are arrived at:

	Wagon Transportation.	Rail Transportation.	Saving in favor of Rail Transportation.
Gov't freight.....	\$1,143,462 03	\$368,330 02	\$775,132 01
" troops.....	163,135 65	108,757 10	54,378 55
" mails.....	51,693 38	34,841 12	16,852 26

Totals..... \$1,358,291 06 \$511,908 24 \$846,382 82

The above clearly shows the fact of a *saving* to the Government by the Kansas Railway as made and run during 1867, of \$846,382.82.

The average length of the main line of the Kansas Railroad, operated in 1867, was a fraction less than 202 miles. Now, if our suggestion should be adopted to guarantee the interest at the average rate of \$25,000 per mile for the entire route, the total liability of the Government, on the 202 miles would have been for six per cent on \$5,050,000, or \$303,000, while the amount of Government transportation was \$511,908.24, leaving a clear surplus of earnings from the Government service alone of \$208,908.24, to be applied, with the entire gross earnings, from common traffic, to running and other expenses.

Hence, our theory that it is *economy* to construct these roads, we consider as fully sustained; we could extend our extracts from official records, but deem it unnecessary.

If, upon the basis suggested in our previous article, the Government guarantee of interest should be on 2,000 miles for the Northern Road, extending from the Straits of Mackinaw to Puget's Sound, and on 2,000 miles to complete the Southern system of a continental railway, being in round numbers, say 1,000 miles from the present terminus of the Kansas Road to the Colorado river, 750 miles to extend the Atlantic and Pacific to a point of junction with the same at or near Anton Chico, and 250 miles from Marshall, Texas, to a point on the Washita, uniting it with the last named road, on the sum of \$25,000 per mile, the whole amount of the Government

guarantee and risk would be the interest on \$100,000,000, or \$6,000,000 per annum. There is no intelligent member of Congress who does not know that the Government would have no difficulty in "trading out" this sum, and that it would be a huge saving to have the opportunity to do so.

Thus it will be seen that the Treasury is safe from loss, besides having saved on the old "mule method" of transportation, in net cash \$646,382.82 on these two hundred and two miles.

In addition to the above, we have no data enabling us to estimate the saving in time, the wear and tear of Government animals, and the loss of men by long marches, which alone must be a considerable item.

We were partially led to make these remarks by the following extract from the letter of the N. Y. *Herald's* Washington correspondent. The *Herald* writer says:

"The Denver Pacific Railroad men are considerably demoralized to-night over the virtual defeat they sustained in the House today by the reference of their bill to the Committee on Public Lands. The fate of this bill was considered the test of all the others of a similar character now before Congress.—Washburne's motion to dispose of the whole matter by laying it on the table was defeated by a vote of eighty-five to ninety-three, because many who opposed the bill in its present shape were not prepared to go as far as Washburne, and stop the business of granting subsidies in every shape and form. It was therefore sent to the committee, that its friends might have an opportunity to profit by the experience of the debate in the House. It is now proposed to get up a general bill which will include all the roads partially constructed or under construction, under existing laws.—The chief idea of this bill will be that the government, instead of guaranteeing the bonds of the road, will only guarantee the payment of the interest on the bonds, to secure itself. The road will be required to allow the government a drawback in the payment of freights for the transportation of government stores and supplies equal to the amount of interest guaranteed. This, it is thought, will be acceptable to all parties, except, perhaps, E. B. Washburne."

We fear the opposition of Mr. WASHBURN is factious; and indeed we have heard many unreasonable people attribute it not so much to pure patriotism, as to a sort of prudishness, and the fact that his State (Illinois) has already received the "butt end" of the *benefits* of aid heretofore granted in the construction of Pacific Railroads. Which is enough? That the great Central route must pour its trade into Chicago, and that it will derive advantages from the *monopoly* of the Pacific trade which might be divided with other localities, if competing routes are constructed.—This is, however, such a narrow "strait jacket" view of the needs of our vast country, that we can not believe that a statesman of Mr. WASHBURN'S capacity would entertain it. We would rather think that he would be one of the foremost in carrying out the great motto of our country, "Excelsior," onward until the "stars and stripes" shall float over

every acre of land from the Arctic to the Equator, controlling at least the traffic of our own continent, with an equal showing for that of the two oceans.

It is all nonsense to contend that we have territory enough; the cravings of the American people will not be satisfied until "manifest destiny" is "*accompli fiat*." The contracted noses of conservative "do-nothings" may turn up till they touch their eyebrows at "eternal snows" or "desert wastes of rock and sand," but the world can take notice that the time will come when but one flag will float from the Mackenzie river to the Panama Railroad, as sure as the sun continues to rise and set, and water run down hill.

But to the guarantee. This should be reduced to a practical working scheme. *First*, the Government should retain *all* money earned by the roads for Government service, and if in excess of the amount of interest guaranteed, the balance should be devoted towards a *sinking fund*, to cancel the principal of the debt. *Second*, the roads should be required to pay to the Treasurer of the United States, say *five per cent.* (or such other sum as the wisdom of Congress may direct) of gross earning every year after the completion of the roads, as an additional contribution to the "sinking fund." *Third*, the bonds should be the *lien* on the road; the Government needs no other security for its *risk* than the *money* retained. *Fourth*, the lands granted should be placed in *trust*, under the direction of Congress, and, as needed, "land grant bonds" could be sold to meet any deficiency that may arise in the construction of the more costly portions of the road, redeemable from the proceeds of the sale of lands. These bonds would command the money in the markets of Europe, if properly guarded by acts of Congress. *Fifth*, the tolls on freight traffic and the rates on passenger traffic should also be under the control of Congress; although they should be liberal, and sufficient to produce an abundant revenue to meet the wants of the company, yet they should be such as would encourage trade and develop the resources of the country. For this reason they should be, somehow, under the control of Congress. *Sixth*, provision should be made for extinguishing the *guarantee*, and consequent liability and control of the Government, either at a period when the roads become self-sustaining, or when the sinking fund shall have extinguished the original debt, which need not be in the distant future. *Seventh*, when the Government guarantee ceases, the entire control of the property should pass into the hands of the company, and the Government should pay for its service in cash direct, at, say about *three-fourths* the schedule rates charged on common traffic. This advantage to last for all time after the cessation of the Government guarantee; but until that time the Government should and can afford to pay full rates.

We think if the above are carried out the "dead wood" will be on corruption, the material interests of the country developed, national aggrandizement promoted and "manifest destiny" secured.

Progress of Events; Railroads, Lands, and Currency.

The newspapers, especially that truth-loving accurate corps of young men, called "*our own Correspondents*," at Washington, have been alarming the public mind with accounts of vast grants of public lands to railroads, as if the Government, as the largest proprietor of lands in the world, had no right to improve its own domain, or increase the value of its own property! The real question is not how much land the Government has given; but, whether it has really improved the value of Government property, or *enlarged the basis of taxation*? The last is the great point now. We have an immense debt. We have an immense revenue to raise; and how to pay this debt and raise that revenue is the question. Every sensible man knows that these great sums of money have to be raised out of the labor and lands of the country. All the financial plans out, without exception, are only dodges; schemes to converge at the same point, more or less easily. It is very well to do this. We ought to make taxation easy as possible, and enlarge, if possible, the broad basis of property and taxation. How shall we do this? Shall we arrest all the efforts of Government in that direction, and stand still? Or, by wise and moderate progress keep up the stimulus to industry, and increase the wealth of the country? Now, in the light of the object before us, to stimulate industry and increase wealth, what has the Government done? The Government domain lies West of the Mississippi, East of the Nevada range. It includes all the Territories and a large part of Kansas and Nevada, and Oregon, and Nebraska. The newspapers, particularly "*our own Correspondent*," state that the Government has made immense grants of this domain, giving the world to understand that it is a large part of the whole. Now, it would be well to look for a moment and see what the Government actually *has done*. The Pacific Railroad has now reached the 1,000th mile, and receives 12,800 acres per mile, that is, it is now entitled to 12,800,000 acres of the public land. This is just about 20,000 square miles. The residue of the road will take nearly (not quite) as much. The Northern Pacific, if ever made, being less in length, will require only about two-thirds as much. The Southern Pacific about the same. There are branch roads in Kansas, Minnesota, and Nebraska, which will require about as much as one of the Pacifics. Now, what have they got? Let us state the account current fairly. Here it is:

	Acres.
Union Pacific.....	25,600,000
Northern Pacific.....	16,000,000
Southern Pacific.....	16,000,000
Branch Roads.....	16,000,000
Total.....	73,600,000

"Our own Correspondent" says, the Government has given away 190,000,000 acres. If it has, it must include every acre granted in any way since the foundation of the Government; and half of it has nothing to do with the present state of affairs. It is also true that many of the grants are void, having expired by limitation. Let us assume, however, as the largest probable amount of lands granted by the Government to railroads West of the Mississippi, 80,000,000 acres. Now let us compare this with the amount of the Government domain:

	Acres.
$\frac{1}{2}$ Kansas.....	26,700,000
$\frac{1}{2}$ Minnesota.....	
4-5th Nebraska.....	33,000,000
Colorado.....	90,000,000
Dacotah.....	60,000,000
Wyoming.....	40,000,000
Montano.....	75,000,000
Idaho.....	75,000,000
Washington.....	50,000,000
Oregon.....	50,000,000
Utah.....	70,000,000
New Mexico.....	80,000,000
Arizona.....	90,000,000
$\frac{1}{2}$ Nevada.....	31,000,000
$\frac{1}{2}$ California.....	52,000,000
Total.....	822,700,000

In addition to these are great quantities of Public Lands in Iowa, Missouri, Arkansas, etc., etc., which if taken altogether will bring the Public Lands fully up to *one thousand millions of acres*. It will be seen then, that if all the land granted, or proposed to be granted to the Pacific Roads and their branches be taken by these roads, it will not amount to more than *one twelfth* the public domain. The question then is, whether a man with 100 acres of useless and inaccessible lands would not give 8 acres to *improve it and make it accessible and marketable*? This is so obvious, that none of the objections to our Pacific Roads meet it, or can meet it. The *N. Y. Tribune*, in answer to an able correspondent says this is all true; but, a farmer may have need of certain improvements, for which he has no money, and is already in debt, and therefore must postpone it. This is very well, and in the case of the farmer is well put. But are the farmer and the Government alike? Not at all. The farmer arrests his intended improvement, his credit and means are confined to a very narrow limit. But this is not the case with a government, for several reasons. *First*, the Government means are constantly increasing by a large ratio, through natural means, by immigration, by cultivation, by industry, etc., etc., in a manner to which a farmer's establishment has no parallel. *Secondly*, Government credit is not limited in the manner of the individual, and if it were, it has not reached any such limit, as that usually given to an individual. If a farmer were to put a mortgage on his land not exceeding one-third of its value, it would be deemed reasonable, and the farmer remain

in full credit. Now, the fair value of the United States at the present time, is at least *twenty-five thousand millions of dollars*. The whole public debt is exactly 10 per cent. on that value. All the lands and bonds of the Government asked for to complete all the Pacific Roads and make all the public improvements asked for, would not be *one per cent.* on the valuation of our property. Hence, we say, that the credit asked is reasonable and safe.

We have made this examination in order to satisfy our own minds, what would be the *practical effect* of Congress going steadily forward with all three lines of Pacific Roads; and the result is, that the Government will gain a great deal more by extending the basis of taxation, than it can lose by the small amount of credit asked. We shall not be disappointed to find the penurious policy prevail for a time; but, the result will be a perfect *demonstration* that liberality is the best policy. The financial policy of the country will soon be settled and consolidated, and we anticipate that commerce, industry and production will be greater than ever; and the prosperity of the country will rapidly increase. In our opinion, the completion of the Union Pacific will be one great means of stimulating commercial enterprise.

Our Commercial Thoroughfares.

LOUISVILLE, CINCINNATI AND LEXINGTON RAILROADS.

The following interesting history of the Louisville, Cincinnati and Lexington Railroad, appears in the *Kentucky Farmer's Home Journal*:

The Lexington & Ohio Railroad Company was chartered in 1829, with authority to build a railroad from Lexington to the Ohio river. Louisville was fixed upon as the other terminal point. At that time railroads were novel enterprises, concerning which the people of the United States had little information and no experience. The company began operations with less than half the means necessary to complete the work before them. The difficulty was increased by the mistakes resulting from inexperience of their engineers. In 1837, the company found themselves hopelessly involved, having only completed their road from Lexington to Frankfort. In 1840 the road was sold to satisfy its debts, and the State of Kentucky became the purchaser. Having been laid with a light strap rail upon stone sills, the road by this time became impassable. In 1842 it was repaired by the State at a cost of \$100,000, and was then leased to McKee & Swigert for seven years, at an annual rent of \$17,000. In 1848 the superstructure had again worn out, and the passage on the road was so tedious and unsafe that travelers generally deserted it and took the stage line through Versailles, as safer and more expeditious. It became plain that the State must again expend \$100,000, to replace the road in the condition it was in when first leased to McKee & Swigert. As this

would have required the expenditure of the whole amount received as a rent, it was apparent that the road had been not only worthless, but an actual burthen to the State.

In 1847 a railroad company was authorized to build a railroad from Louisville to Frankfort, and the interest of the State in the unfinished road of the Lexington and Ohio Railroad between these points, was sold them at the appraised value of \$74,500, on which sum the company undertook to pay the State interest at the rate of six per cent. per annum perpetually.

In 1848 a railroad company was incorporated and authorized to build a railroad from Lexington to Frankfort. The State sold to them the old road between those points, and received in payment one hundred and fifty thousand dollars of the capital stock of the new company. In 1857 the Louisville & Frankfort and Lexington & Frankfort Railroad Companies became partners by an agreement to operate their lines as one road, and divide the profits of the whole line, in the proportion of the length of road owned by each company. In 1866 the two companies were authorized to extend their road from Lagrange to Cincinnati. The means with which to build the new line were required to be furnished by the two companies in the proportion of the lengths of their original roads, and the profits of the new line will be divided between the companies in the same proportion. The new road was begun in May, 1867, and will be completed ready for business in two years from the commencement of the work. Its length is about 80 miles, and 46 miles of the track have already been laid.—The distance from Louisville to Cincinnati will be 107 miles, and the time occupied in the transit four hours; while the distance between the two cities via the Indiana road is 133 miles, and the time occupied seven hours. The distance by river is 144 miles, and the time occupied twelve hours.

We have shown that the road, in 1848, was absolutely worthless to the State; since its transfer to the present companies the State has received in interest and dividends the following sums:

Cash dividends from the Lexington & Frankfort Railroad Company...	\$141,570
Cash interest from the Louisville & Frankfort Railroad Company.....	63,000
Stock dividends from the Lexington & Frankfort Railroad Company...	67,800
Dividends in the preferred stock of the joint roads.....	19,602

Making a total of..... \$291,972

And the State is now the owner of the following:

Stock of the Lexington & Frankfort Railroad Company.....	\$217,800
Preferred stock of the joint roads...	19,602
Perpetual debt of the Louisville & Frankfort Railroad Company.....	74,519

Making a total of..... \$311,921

The profit indirectly derived by the State from the construction of these roads, by the increase in the taxable value of the real estate along their lines, and by the people of the State, from the cheapening and quickening of transportation, has been very many times greater than the sums we have mentioned. But, as these are the general results of railroad construction, it is not necessary or proper to dwell upon them in an article intended to set forth the peculiarities of a single road.

It appears from our review that the construction of the road from Louisville to Lexington has led to the extension of the line from Lagrange to Cincinnati. And so the construction of the road from Louisville to Nashville has caused to be built, first, the branch from Bowling Green to the State Line; second the branch to Lebanon; third, and the existence of the last-named branch has induced its extension to Danville, Crab Orchard, Mount Vernon and Richmond.—Again, it is clearly the interest of the owners of the Kentucky Central Railroad to extend their road southwardly from Lexington to the Tennessee State Line; as it is the interest of the Louisville & Lexington road to reach onward from Lexington to Big Sandy river, and that of the Louisville & Nashville Company to continue its road from Mount Vernon to the State Line in the direction of Knoxville or Lynchburg. The primary cause of these movements is, of course, the promotion of the interest of the stockholders of the roads already built. But the State and its people are not the less certainly benefited by the result from the fact that its primary motive is a selfish one. The facts we have pointed out are but a repetition of what is seen on a still greater scale at the North. Railroads there, as here, were first built on the most profitable routes, where the greatest wealth was found. It was soon seen that extensions and branch lines, though not promising of profit in themselves, were highly so by the additional business which they brought to the roads already built.

The Railroad Situation.

How far and in what way the interests of Cincinnati will be influenced by the appearance in the West of the great Eastern Railroads, contending for through connections, and the monopoly of tributary lines, is a question of first-rate importance that concerns every body. We may start with the proposition that the managers of the New York Central and the Erie Railroads are not in antagonism. The Central takes the Lake Shore, and the Erie strikes for the Southwest. This policy, it will be observed, would make the Atlantic and Great Western fork of the road really the principal line, and the road from Salamanca to Dunkirk a branch. Mr. JAY GOULD, who is "the brains of the Erie," took the Atlantic and Great Western Road just in time to save it from the grasp of the Pennsylvania Central. Arrived at Dayton he was ready to lease the Cincinnati, Hamilton and Dayton Road, or to build a new road from Dayton to Cincinnati. His position is one of great power. He has four thousand laborers employed in giving the Erie a double track and putting down steel rails, and as no dividends are paid on Erie stocks he has the earnings of the road and the proceeds of sales of stock on hand to the amount of from fifteen to twenty millions. A man with four thousand trained and skilled laborers, who might be transferred in a few days from reconstructing the old line of the Erie to the construction of a new road from Dayton to Cincinnati, and the ready millions that we have mentioned, was the protentate with whom the officers of the Hamilton and Dayton road had to deal. The contract that we published a few days ago was the result of the negotiations. Mr. JAY GOULD's visit to the West soon followed. Urbana is an important point in his calculations, being the place of the crossing of the broad gauge line of his combination by the

narrow gauge, which aims to tap Central Indiana and go up to Chicago, extending, also, an arm through Central Illinois. We are more immediately concerned in his operations in this direction. Cincinnati is, of course, one of his great objective points, and we may assume that he calculates it will be a second base of operations; and that from this base the master of the Erie looks Westward to St. Louis, and especially Southwest, including even New Orleans in the wide sweep of his enterprise. The road from North Vernon, on the Ohio and Mississippi, to Louisville, will be completed next summer, in time for the Jeffersonville bridge, and it is expected that as good time will be made over it as over the South side, or Louisville and Covington road, which will be finished about the same time. These will be valuable Southern connections for us, drawing this way the Southern travel that now finds its way from Louisville East by way of Indianapolis.

Another part of Mr. GOULD's programme is to cause through connections to be made from Louisville to New Orleans. The roads are to be placed in better condition, and passengers put through in good time, without change or cars. This would largely gather up the travel between New Orleans and New York that now, in part, passes up the Illinois Central to Chicago, and thence East, and in part through the Southern lines. The necessity of a railroad bridge across the Ohio at this point is palpable, and these railroad schemes have caused additional agitation of that subject. A consultation was held on Tuesday, Mr. JAY GOULD and several of our most prominent railroad men and bankers taking part, which resulted in a resolution to incorporate a company immediately for the construction of a railroad bridge between lower Covington and this city. There is no doubt of the ability of the corporators to command the capital to do this work, or of their purpose to do it without delay. Mr. JAY GOULD's ambition and power, seem likely to serve us in bringing again into bold relief the magnificent geographical position of Cincinnati. The re-establishment of the current of travel from New Orleans to New York by way of Cincinnati, is an event whose favorable consequences may be estimated very highly without extravagance. With Cincinnati as the half-way house between New York and New Orleans, it will be her own fault if she does not offer attractions that will be agreeable to travelers. Chicago has had some advantages in the fact that the railroads that center in her depots are owned by Eastern capitalists. The special advantage has been that whenever the want of connections became apparent, they were provided by Eastern capital. Cincinnati has had the distinction of owning her own roads, with the exception of the Ohio and Mississippi, and while she has had advantages from her own ownership, she has some disadvantages to contend with. Our use of capital by pledging the credit of the city has been prevented by the Constitution of Ohio and we have sought in vain to build a Southern railroad connection, the want of which has been grievously notorious for many years. Mr. LINCOLN saw the great gap in our railway system, and during the war wanted it supplied for military service. With a restored South it is a necessity of commerce. Of course, the Erie Railroad will not be allowed to monopolize the Southern trade which is to center at Cincinnati. The Pennsylvania Central road is already in the field. This road has the Fort Wayne and Chicago line from Pittsburg to Chicago, a line that is now very

popular with Chicagoans and New Yorkers passing between those cities; and she has the Panhandle line to Cincinnati, and is ready to contest with the Erie the command of Central Indiana, and to build a road, if it is necessary, south of the Indiana Central. But her point to get at the Southern trade is Cincinnati, and if the Erie goes to Louisville by North Vernon, she will go by Covington, and will bridge the Ohio at Newport, if rival or hostile combinations span the river below the suspension bridge; and if the Erie occupies and possesses the Louisville and Nashville line, it is not impossible that the Central Pennsylvania will build a direct road to Nashville from this point. An article from the *New York Commercial and Shipping List* appeared in the *COMMERCIAL* yesterday, a few sentences of which we reproduce, as follows:

"The Erie having been successful in these undertakings, what next? Will it stop at Cincinnati in its Southward course, while the Pennsylvania Central controls the road on the south side of the Ohio to Louisville, and through that line to Nashville and the South? This is not probable. Fifteen million dollars will build a road through Kentucky to Tennessee, and secure the shortest possible connection between New York and the South. The Erie managers will not stop at Cincinnati. The question will not be whether we shall have one road to the South, but whether we shall have two; whether the Pennsylvania Central will not vigorously contest the field with the Erie. The next gobble may be looked for on the south side of the Ohio river. The prize in that direction is a rich one. It will not be lost sight of. This may be inferred from the fact that a bridge company, backed by the Erie Company, is to be formed at once for a railroad bridge between Cincinnati and West Covington.

"From this it would appear that Cincinnati is to be the center of the coming contest for railroad control. The Erie movements have created an interest there from which that city will derive permanent benefits. This is no doubt very satisfactory and pleasant to the people of Cincinnati, but there is another view of the case in which the general public is far more deeply interested. When the battles shall have been fought, there will be a treaty of peace. Then the public will be called upon to pay the costs of the war. These powerful railroad corporations are dangerous. The public are at their mercy."

The Bridge Company referred to here was actually formed in this city on Tuesday last; and as a specimen of the policy that is to be expected, we may say that information reaches us to the effect that among the important business transacted by Mr. GOULD while in this city, was the signing of a contract with a fast freight company, which is to have possession, for its purposes, of the broad gauge to New York, and that this company is largely if not exclusively composed of the gentlemen in this quarter who are interested in the Star line on the Pennsylvania Central road. Already at least two of the transportation companies that have been operating here, and making competition lively, have been warned off, and an advance in freights may be expected within a few weeks. This is not the most auspicious result upon which we could wish to congratulate our readers as the first fruit of the competition between vast combinations for the trade that is in and beyond Cincinnati; but we trust that we may not have to pay the costs of war without enjoying its advantages. —*Cin. Com. Jan. 28, 1869.*

Railroads.

The Columbus & Xenia Railroad has been leased to the Little Miami Railroad, and this lease was yesterday confirmed by the stockholders of the former. These roads have heretofore had a close running arrangement with two boards of officers. Hereafter they will be operated as one road.

It is generally understood, however, that this step is preliminary to a lease of the entire road—from this city to Columbus—to the Pan Handle Company, which is owned by the Pennsylvania Central. This will give to the latter a direct and continuous track to this city, thus placing one end of this wealthy and powerful corporation in Cincinnati, and so far as the trade of this place is concerned, placing it on an equal footing with the Erie. Then the contest will be for the control of Southern connections.

To-day there will be a sharp contest at Columbus for the control of what are known as the "Ben. Smith roads." These include the Columbus, Piqua & Indianapolis, and the Chicago & Great Eastern roads. These roads have been leased to the Erie, and upon the confirmation of this lease the stockholders will vote to-day. The contest will be between the Erie and Pennsylvania Central.

The Erie has obtained control of the Cleveland & Pittsburg road. The object of this was to get into the Union depot at Cleveland and to secure a connection with Pittsburg. The Atlantic & Great Western leased the Cleveland and Mahoning R. R., over which it ran into Cleveland. The Cleveland & Mahoning managers now seek to annul the lease, on the ground that the Atlantic & Great Western R. R. had no legal right to transfer the lease to the Erie Company. This is a flank movement on the part of the ousted Cleveland & Pittsburg men. The latter have also caused a bill to be introduced into the Ohio Legislature to help their side of the case.

It is not yet certainly known whether the Erie combination has secured control of the Pittsburg, Fort Wayne & Chicago road. The fight for this road is sharp, as shown by the large advance in the stock in New York.—It is believed that the Erie and New York Central hold a majority of the stock in the Michigan Southern. This makes one route to Chicago complete.

The object in gobbling the Pittsburg, Fort Wayne & Chicago and the Chicago & Great Eastern, is double: First, to make a route for the Erie to Chicago; and, second, to cut off the Pennsylvania Central from the Northwest.

Coming back to Cincinnati we find a new bridge company organized, backed by the Erie, Baltimore & Ohio, Cincinnati, Hamilton & Dayton, Cincinnati, Indianapolis & Lafayette, and Ohio & Mississippi, for the construction of a railroad bridge over the Ohio at the West End, to connect the roads named with the Southern Railroad. This means business Southward. As mentioned yesterday the Erie managers have closed up all the fast freight lines that did business over the C. H. & D. and Atlantic & Great Western Railroads, with the exception of the Erie Transportation Company. This latter is owned and managed by the Erie Company. The policy is to have no outside freight companies on the Erie roads.

The next movement will be against express companies. Vanderbilt and Gould are understood to be a unit on this point.—*Cincinnati Gazette.*

Annual Reports of the Officers of the Western and Atlantic Railroad.

From a copy of the above reports for the fiscal year ending Sept. 30, 1868, we make some interesting extracts:

The total receipts have been—

From Freight.....	\$675,414 38
From Passengers.....	249,125 87
From Mails.....	18,062 50
From Miscellaneous Sources...	1,004 49
	<hr/>
	\$943,607 24

The working expenses have been—

For transportation.....	\$191,790 16
For Motive Power.....	233,290 96
For Maintenance of Way.....	107,370 31
For Maintenance of Cars.....	95,977 01
For General Expenses.....	26,811 07
	<hr/>
	\$655,239 51

The extraordinary expenses have been—

For Equipment.....	\$2,027 96
For Depot Buildings.....	1,869 11
For New Buildings.....	3,218 74
For Real Estate.....	48 50
For Bridging.....	12,801 30
For Re-laying Track.....	2,082 00
	<hr/>
	\$22,047 61

	<hr/>
	\$677,287 13

	<hr/>
	\$266,320 12

The total receipts for the year have been.....	\$943,607 24
And the expenditures.....	677,287 12
	<hr/>

Excess of receipts over expenditures.....	\$266,320 12
---	--------------

Ratio of working expenses to receipts, 70 per cent.

The annexed table shows the estimated cost of ballast per mile, and the total cost for the entire line: Details for one mile.

Cost per yard of 27 cubic feet Stone Ballast, broken and delivered on right-of-way.....	75
Cost distributing and putting on track.....	45
	<hr/>
	\$120

One cubic yard of ballast will put up one lineal yard of track nine feet wide, cost, one mile (1,760 yards) at \$120—\$2,112,130 miles, 274,560 00. The Superintendent recommends, as a matter of true economy, the ballasting of the road, extending the work, if necessary, over a period of years.

The following table estimates the cost of renewing the rails:

DETAILS FOR ONE MILE.

176,000 lbs (50 lbs to the yard) at \$35 per ton for re-rolling..	\$2,750 00
28,160 lbs to make up 58 lbs to the yard, at \$80 per ton.....	1,005 70
8,294 lbs clamps and fastenings at 7½c.....	622 05
Punching holes in 91 142-1000 tons, at 75c.....	68 35
4,900 lbs spikes, at 5½c.....	269 50
1,000 cross ties, at 30c.....	300 00
Laying the track.....	500 00
	<hr/>

Total cost per mile.....	5,515 60
Number of miles.....	48
	<hr/>

Cost for 48 miles.....	\$264,748 80
------------------------	--------------

MASONRY.

There are 258 Culverts on the line, as follows: 175 single box culverts, 13 double box culverts, 15 arch culverts, 55 open culverts.

Total, 258.

Much of the masonry of the culverts, as well as that of the bridges, is in a dilapidated condition, and in some instances require extensive repairs.

The annexed estimate, it is believed, will cover the cost of the same:

Bridges—repairs to masonry ..	\$2,500 00
Culverts—repairs to masonry...	3,000 00
	<hr/>

Total.....	\$5,500 00
------------	------------

The annexed general statement shows the extraordinary expenses to be incurred:

ESTIMATE EXTRAORDINARY EXPENSES.

Cost ballasting 130 miles, at \$2,112 00 per mile.....	\$274,560 00
Cost 48 miles new rail, 58 lbs per yard, at \$5,515 60 per mile...	264,748 80
Cost, repairs, masonry, bridges and culverts.....	5,500 00
Cost covering 3,982 feet Howe Truss bridging at \$6 00 per ft	23,892 00
Cost building 12 wood sheds at \$1,500 00 each.....	18,000 00
Cost repairs to depots.....	6,000 00
Cost building machine and car shops.....	50,000 00
Cost fencing 90 miles at \$612 48 per mile.....	55,123 20
	<hr/>

Total.....	697,823 00
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This estimate may be reduced by leaving out:

Ballasting.....	\$274,560 00
Fencing.....	55,123 20
Wood Sheds.....	18,000 00
	<hr/>
	347,683 20

Leaving..... \$350,140 80 to be provided for.

From the accompanying report of Mr. E. B. Walker, Master of Transportation, we make some interesting extracts:

The rolling stock consists of 9 first class passenger cars; 6 second class passenger cars; 7 baggage and mail cars; 1 pay car; 2 express cars; 2 wrecking cars; 403 box cars; 69 flat cars; 28 stock cars; 73 coal cars; making a total of 24 passenger, baggage and mail cars; 1 pay car; 2 wrecking cars; 573 freight cars—cars of all kinds 600.

A large portion of the freight cars are in very indifferent order, requiring extensive repairs in axles, "flat wheels," rotten sills and leaky roofs, which are being repaired as fast as possible. 21 flat cars have been converted into coal cars, to supply the wants of transportation in that article, and yet the supply is not sufficient. More coal, flat and stock cars will have to be built to transport the increased production of pig and other kinds of iron, and the increasing demand for stock in the low country.

The motive power is in usual good condition, and ample, thus far, to do a much larger business than we can get.

The trains have run with usual regularity, no accident or interruption having occurred since I took charge of this Department.

TREASURER'S REPORT.

TREASURER'S OFFICE, W. & A. R. R., }
ATLANTA, Oct. 1st, 1868.

COL. E. HULBERT, Superintendent:

SIR: Annexed you have a report of the operations of this department of the Western & Atlantic Railroad, for the fiscal year, from October 1st, 1867, to September 30th, 1868.

RECEIPTS.

Cash balance on hand 30th September, 1867.....	\$ 3,067 60
From connecting railroads.....	639,514 40
From freight, passengers, and other sources.....	918,066 56
	\$1,560,648 59

DISBURSEMENTS.

Paid to connecting railroads.....	\$605,125 95
Paid for miscellaneous purposes..	699,458 11
Paid into Treasury of Georgia.....	231,000 00
Cash balance on hand 30th September, 1868.....	25,064 53
	\$1,560,648 59

Respectfully submitted,
WM. W. CLAYTON,
Treasurer W. & A. R. R.

FINANCIAL STATEMENT FOR THE FISCAL YEAR
ENDING SEPTEMBER 30, 1868.

Cash in Treasurer's hands, September 30, 1867.....	\$ 3,067 61
Materials on hand Sept. 30, 1867,	108,539 33
Balance due by Post Office Department, Sept. 30, 1867.....	3,500 00
Balance due by Agents, September 30, 1867.....	2,310 07
Balance due by former Agents, September 30, 1867.....	7,626 11
Balance due by connecting roads and others, September 30, 1867,	190,008 24
Balance due to connecting roads, September 30, 1868.....	22,213 54
Balance due to Agents, September 30, 1868.....	18 91
Gross earnings from September 30, 1867, to Sept. 30, 1868.....	943,607 24
	\$1,280,891 05

Amount paid expenses from Sept. 30, 1867, to Sept. 30, 1868.....	\$655,239 51
Amount paid Extraordinary Expenses from Sept 30, 1867, to Sept. 30, 1868.....	22,047 61
Balance due connecting road and others, Sept. 30, 1867.....	283,763 23
Balance due by connecting roads, Sept. 30, 1868.....	12,820 30
Balance due by Agents, Sept. 30, 1868.....	5,306 67
Balance due by former Agents, Sept. 30, 1868.....	1,726 95
Balance due by Post Office Department, Sept. 30, 1868.....	4,312 52
Balance due by U.S. Government, Sept. 30, 1868.....	1,048 33
Balance due by State of Georgia, Sept. 30, 1868.....	179,935 82
Bills receivable, notes on hand, Sept. 30, 1868.....	6,311 33
Amount paid for material on hand, Sept. 30, 1868.....	83,314 25
Cash in Treasurer's hands, Sept. 30, 1868.....	25,064 53
	\$1,280,891 05

B. F. MOORE,
General Book Keeper.

Material Progress of United States.

The comparative progress of our country with that of England and France, is shown by the following tables, which we take from Mr. WINDOM's speech in Congress in favor of the Northern Pacific Railroad:

	United States.	Great Britain.	France.
1790.....	3,929,827		
1793.....		14,500,000	
1800.....	5,305,937	16,000,000	
1801.....			27,349,000
1810.....	7,239,814		
1812.....		18,000,000	
1820.....	9,638,191		
1823.....		21,193,438	
1821.....			30,461,000
1830.....	13,866,020		
1833.....		24,304,799	
1831.....			32,569,000
1840.....	17,069,453		
1841.....		27,041,001	34,230,000
1850.....	23,191,876	27,300,000	
1851.....			32,283,000
1860.....	31,445,000		
1861.....		29,334,788	37,400,000

Increase in the United States for seventy years, 700.41 per cent.

Increase in Great Britain for sixty-eight years, 102.30 per cent.

Increase in France for sixty years, 37 per cent.

	Value of all kinds of property in the U. States—estimated.	Value of all kinds of property in Great Britain.
1790.....	\$750,000,000	
1793.....		\$7,132,000,000
1800.....	1,072,000,000	8,753,400,000
1810.....	1,500,000,000	
1812.....		10,212,300,000
1816.....		10,400,000,000
1820.....	1,882,000,000	
1823.....		10,698,600,000
1830.....	5,653,000,000	
1833.....		17,199,458,400
1840.....	3,764,000,000	
1841.....		19,452,900,000
1850.....	7,135,780,000	22,564,320,000
1858.....		29,178,000,000
1860.....	16,159,000,000	

"The following is an estimate of the tobacco crops of the United States since 1850, prepared by a committee of the trade for the use of the Committee of Ways and Means at the first session of the Fortieth Congress:

	Pounds.
1850.....	201,350,663
1863.....	267,358,082
1864.....	177,460,229
1865.....	183,316,953
1866.....	325,000,000
1867.....	250,000,000

The total number of miles of railroads in the United States at the close of 1855 was 1,098; at the close of 1867, 39,214; giving an average increase of 1,156 for each year of the intervening period."

We condense the following from the report of Commissioner WELLS, for the purpose of showing our national growth since the war.—It will repay a perusal:

"From the 1st of July, 1865, to the 1st of December, 1868; about one million natives of foreign countries have sought a permanent home in the United States. Investigations

made some years ago (since which the character of the immigration has greatly improved) showed that these immigrants bring with them specie or its equivalent to the average amount of eighty dollars per head; while their average value to the country as producers cannot be estimated at less than half the average value of an ordinary laborer in the South prior to the war, namely, \$1,000 each. Immigration, then, since the termination of the war may be regarded as having added \$80,000,000 directly, and \$500,000,000 individually to the wealth and resources of the country. In referring to the general increase in the products of domestic industry he asserts that all the available data tend to establish the following conclusions, namely, that within the last five years more cotton spindles have been put in operation, more iron furnaces erected, more iron smelted, more bars rolled, more steel made, more coal and copper mined, more lumber sawed and hewn, more houses and shops constructed, more manufactories of different kinds started, and more petroleum collected, refined and exported, than during any equal period in the history of the country; and that this increase has been greater both as regards quality and quantity, and greater than the legitimate increase to be expected from the normal increase of wealth and population.

"The following figures are given: number of cotton spindles in 1860, 5,235,727; in 1867, 7,000,000—a gain of 31.78 per cent. in from four to five years, and mainly since the termination of the war.

"Number of woolen manufacturing establishments in Ohio, Michigan, Indiana, Illinois, Wisconsin, Iowa, and Minnesota in 1860, 259; with a capital of \$1,616,740; in 1868, 557, with a capital of \$5,448,000.

"The recent average annual increase in the production of pig iron is remarkably uniform and greatly in excess of the ratio of increase of population. For the seven years from 1860 (when the production was 913,770, tons) to 1867, the average annual increase has been 8.35 per cent.

"The product of the copper mines of Lake Superior in 1860 was 6,000 tons, and in 1867, 11,735 tons.

"In 1862 the export of petroleum was returned at 10,887,701 gallons. During the years 1864 and 1865, with the advantage of a high premium on gold, the export increased to an average of about 30,000,000 gallons. In 1867 the export was 67,052,020 gallons, and for 1868 the export to December 18 is returned at 94,774,291 gallons.

"The recent increase in the production of anthracite coal, which may be taken as a measure of the product of all American coal, is reported as follows: 1862, 7,499,550 tons; 1865, 12,379,490 tons; 1867, 12,650,571 tons; 1868, to December 12, 13,500,000 tons.

"The aggregate crops of the northern States for 1867 were believed to be greater than any previous year, while the crops for the past year are known to exceed in quantity and quality those of 1867.

"The present ratio of the increase of the crop of Indian corn for the whole country is put by the best authorities at an average of three and one half per cent. per annum. The crop of 1859 was returned by the census at 830,451,707 bushels, and adopting the above ratio of increase, the crop of 1868, acknowledged to be a full one, must be estimated at 1,100,000,000 bushels, and if sold at the assumed low average of forty-six cents per bushel, would net over \$500,000,000.

—The Central Pacific Railroad Company are sinking an artesian well near the hot springs on the desert between the Humboldt and Truckee rivers. The water was hot at the top, and, though the bore is now down three hundred feet, it is hotter than ever.

"The following are the estimated cotton crops of the South since the termination of the war: 1865-66, 2,154,476 bales; 1866-67, 1,954,988 bales; 1867-68, 2,498,895 bales; 1868-69, estimated at 12,700,000 bales.

"The culture of rice at the South, which at the termination of the war practically amounted to nothing, has also so far been restored that the product of the present year is estimated at seventy thousand tierces."

St. Mary's Falls Ship Canal and Upper Peninsula of Michigan.

Extract of Annual Message of Hon. Henry P. Baldwin, Governor of Michigan, dated January 6, 1869.

The gross earnings of the St. Mary's Falls Ship Canal for 1867, were \$33,515.54. This was \$10,446 more than was received in 1866. Of this increase, \$4,666.96 were the result of the increase of the rate of tolls from $4\frac{1}{2}$ to 6 cents per ton, upon the tonnage of steamers.

The entire receipts for tolls for the year just closed, were \$25,977.14; being \$7,533.40 less than the year before. This falling off is owing in a great degree to the exceeding depressed condition of the copper mining interest.

The canal has been in operation fourteen seasons. Very considerable repairs have been made during the last two years, which, with those now being prosecuted, will place it in as good condition as the wear and tear of this length of time would allow.

The Board of Control has authorized it to be dredged, to clear it of the mud and stone which have been borne down by the ice and current. Three hundred feet of new pier is to be built on the north side, as its western terminus. The valves of the lock gates and the slope walls are to be repaired and improved. These improvements will be made under the charge of the Superintendent during the winter months. The materials are already purchased and on the ground.

This canal, though located in Michigan and under State control, is a national work, and of great national importance. At the time of its projection, it was supposed to be of sufficient capacity for the transit of any vessels which the trade of Lake Superior would ever require, or which could pass through the shallow waters of the St. Clair Flats, or the St. Mary's river.

For the removal of these river and lake obstructions, Congress has made large appropriations, and the work is now in progress.

The resources of Lake Superior were little known at that time. Its vast mining interests were undeveloped. Its remoteness and isolation were such, that neither Congress nor the people supposed it would ever become one of the great highways of the nation, and still less possibly, one of the great avenues of commerce with the world.

Already the commerce which has been developed along the shores of Lake Superior has become so extended, that the class of vessels which has been found most advantageous to be used in this trade, cannot be loaded to their full capacity, for the lack of sufficient depth of water in the canal.

The great Northwest is yet in its infancy. Population is pressing into the States and Territories with wonderful rapidity. A railroad is already being constructed, from the Mississippi at St. Paul, to the head of Lake Superior, which, during the season of navigation, must make this canal the great outlet for the products of Northern Wisconsin, Minne-

sota and the Territories beyond. Should the Northern Pacific Railroad be constructed, Lake Superior would become emphatically the key to the Northwest, and thus this canal, as its outlet, of still greater national importance.

Although this is a national work, Michigan—not alone the Upper Peninsula, but the whole State—is deeply interested in its improvement, and in all that will tend to make it the great avenue of the trade of Lake Superior and the Northwest. Since its construction, other avenues have been opened, through which no small portion of the trade and wealth of this region is being diverted to other States.

In view of the considerations already suggested, has not the time arrived, when justice to the interests of the Upper Peninsula requires such substantial improvement to be made, as will increase the depth of water in the canal and otherwise facilitate the growing commerce of that important region?

I would respectfully suggest the expediency of an application to Congress for such an appropriation as may be necessary for this object.

Whatever legislation will tend to the advancement of the true interests of our Northern Peninsula, the development of its rich resources, or to relieve its vast interest connected with the mining of copper from its present depressed condition, will, I am sure, receive your most careful consideration.

Ocean Penny Postage.

A memorial recently sent to the British Government, asking that the benefit of penny postage shall be extended to letters sent across the ocean, has attracted some attention in this country. A proposition of this kind is practical, and is likely to meet with favor in the public mind, for it is an established thing that those who pay are willing to pay as little as possible. The argument against the present rates of her postage is, that they are dearer than the prices of transportation of any other articles. A contemporary, who has gone into this matter with earnestness, calculates that one may have a ton of bulky goods transported per steamship from England to the United States for twenty shillings, or about five dollars, a ton of half-ounce letters is transported, at present sea postage rates, at \$51.20, allowing each letter to weigh fully the half ounce; but estimating for letters weighing less, and yet post-paid at the half-ounce rate, a ton of correspondence, it is believed, usually nets to the ocean steamship companies about 8,000 dollars. On the same theory, it is estimated that eight passengers per steamship, with their baggage, are equal to a ton in weight, and they are carried on some steam lines for \$135 currency, in which is included the cost of maintaining them during the trip, which ought to reduce the actual receipts for passage or transportation to from \$90 to \$100 each; making the cost of carrying a ton of passengers and baggage from \$720 to \$1,000.

Reckoning 32 half ounce letters to the pound, and 64,000 to the ton, the result at two cents per ton would be \$1,280, at least, and taking the letters of less than half an ounce weight, much more. These are all arguments to prove that the ocean postages are too high, and they are sensible and unanswerable.

But reason and justice will scarcely be allowed to have any control in a question like this. The British Government is not favorable to the project for a very obvious reason.—

The continuance of heavy sea postage rates gives to her steamships the monopoly of the ocean. Her great lines of vessels have been kept up by the very important profits which the sea postages have ensured. She was willing for a long series of years to grant a subsidy in addition, being determined to keep all other flag-off ocean steamships, if possible.—Theresult has been, that this policy, added to the policy of sending out privateers from British ports during the war of the rebellion to prey upon American commerce, has exercised a very deleterious influence upon our maritime interests. Every line of steamships plying between the ports of the United States and of Europe is under foreign colors. No late effort to establish an American steamship line has been successful. At the present time it is agreed that the only guarantee which can be given for the successful establishment of a new American steamship line to Europe will be that the sea postages, which at present rates are estimated to be worth \$400,000 per annum, shall be given to the corporation. If the penny postage rate were introduced, this handsome sum would be at once reduced to \$100,000, and there would be strenuous opposition to the measure. Against that opposition the friends of low postages must persevere. They have reason upon their side, and make no unrighteous demand. But they must expect delay and the exertion of many influences against them. The only method by which they can succeed will be by keeping the just and sensible facts connected with letter transportation constantly before the public.—*Phila. Com. List.*

—The Salt Lake Reporter says Gen. P. E. Conner has returned from a ten days tour on the Lake, on his new boat, the "Kate Connor." They took a load of ties to Mountain Point, and then cruised extensively on the Lake, exploring the mouths of the rivers, and the islands and harbors. They found no difficulty in sailing anywhere on the Lake, except a few points very near the shore; the water ranging everywhere from twenty to forty-five feet in depth. Bear river is easily navigable to the railroad crossing, at which point it is thirteen feet deep. The entire northern and northwestern shores present singular evidences of the great rise of the Lake's surface within a few years, the boat running for a mile in one place over what was grazing land but five years ago, the tracks of cattle being plainly visible on the bottom. It is estimated that the Lake's surface has risen thirteen feet since the survey by Captain Stansbury, and is now rising one foot per year. If there is a subterranean outlet, it is certainly getting choked up.

The receipts of the Western Union Railroad Company, for the week ending January 21:

	1869.	1868.	Increase.	Decrease.
Freight.....	\$6,972 08	\$8,128 02	.....	\$1,156 00
Passengers.....	2,700 80	2,424 45	\$276 35	.....
Express & Tel.	350 00	600 00	.....	250 00
Mail.....	375 00	375 00	.....	.....
Totals.....	\$10,447 82	\$11,527 47	\$326 35	\$1,406 00
Increase.....	.....	.....	326 35	.....
Decrease.....	.....	.....	.....	\$1,070 65

Receipts from January 1, to January 21:

1868.....	\$29,977 80
1869.....	28,858 39
Decrease.....	\$1,119 41

— A process has been discovered in Paris for the prevention of the decay of wood. As the result of a five years' experience, a paint is recommended which at the same time possesses the advantage of being impervious to water. It is composed of fifty parts of tar, forty parts of finely crushed chalk, five hundred parts of fine, white, hard sand, four parts of linseed oil, one part of the red oxide of copper in its native state, and finally, one part of sulphuric acid. In order to manufacture the paint from this multiplicity of materials, the tar, chalk, sand, and oil are first heated in an iron kettle; the oxide and sulphuric acid are then added with a great deal of precaution. The mass is very carefully mixed and applied while hot. When thoroughly dry this paint is as hard as a stone.

DEPARTMENT OF THE INTERIOR.—The Secretary of the Interior represents that during the last fiscal year public lands were disposed of as follows:

	Acres.
Cash sales.....	914,941.33
Located with military warrants..	512,533.42
Taken for homesteads.....	2,328,922.25
Approved to States as swamps...	259,197.85
Grants to railroads.....	697,257.57
Located with college scrip.....	1,942,889.08
	6,665,742.59

A quantity less by 385,372 acres than that disposed of the previous year.

WANTED!

By a young man who has had several years experience at

CIVIL ENGINEERING

A situation in the office of a superintendent, or in some of the departments of a leading Railroad. Western preferred. Best of references given.

Address,

**Box 179,
Norristown, Penn.**

Jan. 14, 31

VICK'S FLORAL GUIDE FOR 1869.

The first edition of ONE HUNDRED THOUSAND OF VICK'S ILLUSTRATED CATALOGUE OF SEEDS and GUIDE in the FLORAL GARDEN is now published. It makes a work of 100 pages, beautifully illustrated, with about 150 FINE WOOD ENGRAVINGS OF FLOWERS and VEGETABLES, and an

ELEGANT COLORED PLATE,

A BOUQUET OF FLOWERS.

It is the most beautiful as well as the most instructive Floral Guide published, giving plain and thorough directions for the

CULTURE OF FLOWERS AND VEGETABLES.

The Floral Guide is published for the benefit of my customers, to whom it is sent free without application, but will be forwarded to all who apply by mail, for Ten Cents, which is not half the cost. Address

JAMES VICK, Rochester, N. Y.

Jan. 7, 31.

WRIGHTSON & CO.,

Railroad Printers

167 Walnut Street,

CINCINNATI, O.

HAVING MADE RAILROAD PRINTING A

SPECIALTY,

We would respectfully call the attention of Superintendents, General Ticket and Freight Agents to the class of work we are now producing.

Bulletin Boards,

STRETCHERS,

Illuminated and Plain Show Cards

CONSECUTIVELY NUMBERED

COUPON AND LOCAL TICKETS,

Bills Lading,

Way Bills,

Blank Books,

AND ALL WORK INCIDENT TO RAILROAD OFFICES,

Got out in first-class style, and at as low rates as any establishment in the country.

T. F. Randolph,

MANUFACTURER OF

MATHEMATICAL INSTRUMENTS,

SURVEYOR'S COMPASSES, TRANSITS, LEVELS, DRAFTING INSTRUMENTS, &c.,

67 W. Sixth St., Cincinnati, O.

Also Brass Castings and Models made for Patent office.

SUSPENSION

COUPON TICKET CASE.

BACON'S PATENT

This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2 1/2 inches in width, and under. For Tickets over 2 1/2 inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES.
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

BACON & EVERINGHAM,

Milwaukee, Wis

All orders addressed to us will receive prompt attention.

WRIGHTSON & CO.

167 Walnut St., Cincinnati,

R. W. CARROLL & CO.

Wholesale and Retail

BOOKSELLERS AND STATIONERS,

No. 117 West Fourth Street,

CINCINNATI, O.

Keep always in stock a full assortment of

BOOKS & STATIONERY AT LOWEST PRICES.

BLANK BOOKS

Of any desired pattern made to order promptly.

Particular attention paid to BLANK BOOKS and BLANK WORK for

RAILROADS,

BANKERS,

MERCHANTS,

INSURANCE COMPANIES,

MANUFACTURERS,

EXPRESS COMPANIES,

PUBLIC OFFICES, Etc., Etc.

BINDING OF ALL KINDS NEATLY EXECUTED.

Those desiring FIRST CLASS BOOKS can have them done satisfactory at reasonable prices.

R. W. CARROLL & CO.

117 West Fourth Street, 2 doors east of Race

WM. MERCER, R. B. MORE, GEO. STODDARD
Late Master Car Builder C.H. & D. & D. & M.

MERCER, MORE & CO.,

BUILDERS OF EVERY DESCRIPTION OF

RAILROAD CARS

Cambridge, Ind.

REFERENCES.

W. H. WITH, Pres't, C. & I. C. Railway, Columbus, O.
M. RIDENOUR, Pres't, C. & I. J. R. R. College Cor., Ind.
J. M. LUNT, Sup't, C. & I. C. R. R., Indianapolis, Ind.
L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati,
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
O. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indianapolis
Aug. 2, 1866.]

THE

STEAM SYPHON PUMP

IS THE

*Most Simple, Effective and Durable Device for
Raising Water by steam, yet discovered.*

It is an independent LIFT AND FORCE PUMP, without piston, plunger, valve, or movable parts of any kind.

IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE

STEAM SYPHON WATER-STATION

a locomotive can raise water, with its own steam, to fill its tender in the same times as from an ordinary tank; thus dispensing with tanks, pumping machinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,

wherever steam power is used; as at Machine Shops, Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,

48 Dey Street,
NEW YORK.

VERY CHOICE

Oil Lands

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI.

THROUGH —FROM— CINCINNATI TO NEW YORK

WITHOUT CHANGE OF
COACHES!

—VIA—

Atlantic & Great Western R'y.



PASSENGERS leaving CINCINNATI by the A. & G. W. Railway, on Saturday Morning, by the 6:00 a.m. Lightning Express, go

THROUGH TO NEW YORK

Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6,15am.....	7,10pm
" Dayton.....	8,35 ".....	9,30 "
Arrive West Salem.....	1,50pm.....	4,53am
" Leavittsburg.....	4,55 ".....	7,35 "
" Meadville.....	7,35 ".....	11,10 "
" Susquehanna.....	7,48am.....	11,29pm
" Paterson.....	2,25pm.....	6,03am
" New York.....	3,15 ".....	7,00 "
" Boston.....	5,45am.....	4,45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday night instead of Saturday night. All other Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS

At Salamanca with Erie Railway.
At Mansfield with Pitts., Ft. Wayne
and Chicago Railroad.

THIS IS THE ONLY ROUTE

TO THE

OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y

A most Desirable Route.

The Engines, Cars, and other Equipments, are entirely new, of the most modern, substantial, and approved description, unequaled by any Railway on this continent.

SLEEPING COACHES

Provided for all Night Trains, and Smoking Cars for all Trains.

Ample time is allowed, at all hours,
for meals.

No effort will be spared by the Company to render a trip over the Road pleasant and comfortable to the Passenger.

CONNECTIONS ARE CERTAIN!

FOR THROUGH TICKETS AND BAGGAGE CHECKS,

Apply in Cincinnati at New Depot of Cincinnati, Hamilton and Dayton Railway; or at north-east corner of Broadway and Front streets, and at No. 80 Fourth street, nearly opposite Post Office. Also at any of the principal Railroad and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. BUCKER, Supt.

CENTRAL RAILROAD

—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15, foot of Liberty street, North River, at 7:00 and 9:00 a. m. and 18:00 p. m. On Sundays, one Express Train at 8:00 p. m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front 75 East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p. m., Pittsburg 12:15 p. m.

9:00 a. m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 4:30 p. m. Without change of cars from New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN from the West, leaving Pittsburg at 4:20 p. m.; passes Harrisburg at 3:00 a. m.; Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at 7:09 a. m. Through cars from Pittsburg to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Reading at 10:52 a. m.; Allentown at 12:12 p. m.; Easton at 1:10 p. m. Through cars from Pittsburg to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a. m.; Allentown 12:30 p. m.; Easton at 1:35 p. m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Reading at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at 7:20 p. m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7 00 A. M.	9 10 A. M
Springfield & St. Joseph Ex.....	12 00 P. M.	4 30 P. M
St. Louis & Chicago Ex.....	4 55 P. M.	12 15 A. M

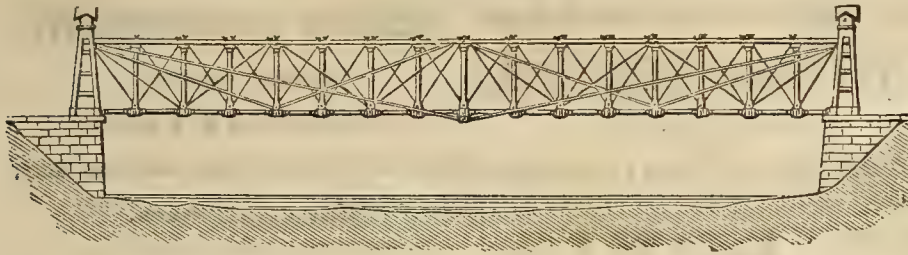
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5 15 P. M.	5 05 A. M.
Harrison Accommodation.....	10 10 A. M.	2 25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and so.manship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,
STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
S. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent.
myll Pittsburg, Pa.

CUMBERLAND COUNTY OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to tent for the celebrated Wheels, either single or double plat with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

—TO—

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit..	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 40 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENTES,	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN,	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vin Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
—AND—
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha

And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	7.30 am	2.30 am
Cairo and St. Louis Express.....	2.20 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	2.20 pm	4.08 pm
Chicago Lightning Express.....	7.15 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8.50 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.
Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.00 am	8.35 am
Connersville and Cambridge City.....	4.00 pm	9.16 am
Lawrenceburg.....	4.45 pm	2.20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

[ARCHED AND FLAT.]



CORRUGATED SHEETS, OF ALL SIZES, CONSTANTLY ON HAND, PAINTED, AND READY FOR SHIPMENT, WITH INSTRUCTIONS FOR APPLYING THEM.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engine and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 9

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches for same. &c., Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
BY G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express); 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at Washington at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.

Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON, } Editors

CINCINNATI:

THURSDAY, FEBRUARY 4, 1869.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.	
One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
" " column, single insertion.....	5 00
" " per month.....	10 00
" " six months.....	40 00
" " per annum.....	80 00
" " page, single insertion.....	75 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00
Cards not exceeding four lines, \$5.00 per annum	
WRIGHTSON & CO.,	
Proprietors.	

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.

Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond & Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express	7:20 A. M.	7:05 P. M.
Night Express	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION

Indianapolis, Rushville and Connersville Mail.....	7:00 A. M.	10:45 A. M.
St. Louis Express	2:30 P. M.	5:10 P. M.
New Castle and Cambridge City, Express.....	7:00 A. M.	10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.	5:10 P. M.	8:10 A. M.
Harrison Accommodation....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

The Northern Railroad from Lake Superior to the Pacific Coast.

In our last number we spoke of the *guarantee of interest* by the Government, and of the total difference between credit advanced by the Government, or by an individual. Any farmer in the world would be thought safe, prudent and wise, who used credit to the extent of one-third his farm to improve and make it profitable. We will give a practical example, which illustrates this subject perfectly. A young man in Eastern Pennsylvania inherited from his father a farm, which was assessed at \$30.00 per acre, and was in poor cultivation, worn out. He hesitated whether to improve it or to sell it. At last he concluded to improve, and he proceeded immediately to lime it. Lime was distant and high. By the time he got all his implements, plowed deep, and put in lime heavily, it cost him \$30.00 per acre; all that it was valued at. He sowed his clover, and then wheat, and at the end of three years his farm was valued at \$100.00 per acre! The account current stood thus:

Original cost, interest and improvements.....	\$ 65 40
Present value.....	100 00
Net profit.....	100 per cent.

What will Mr. Washburne and "our own Correspondent" say to this? Will they say this man ought not to have improved his land? Will they say he ought not to have improved his land to secure \$40.00 advance? No, they won't say that; because it is against the common sense of mankind. But, Mr. Washburne will say, "stop awhile, let us get out of debt." Well, let us try that experiment. Here is an old farmer, with his wagon and horses stuck in the mud. Some one says, "put on another team, old fellow." But the man on the other side, farmer Washburne says, "No, not at all; stay in the mud, till you get out of the mud." How soon will you get out? But, here is "our own Correspondent" much troubled on another point. He says, the men who furnished the lime made a large profit, and the men who sold the implements got double price, and it is a dreadful shame that so many corrupt people should be employed! Well, what of it? Suppose the young farmer had not bought lime or implements, then he would not have got \$40.00 per acre clear profit. If he were fool enough to follow "Our own," he would be cultivating a poor, worn out farm, not worth one-third so much. He followed common sense, and he is rich. This is the whole argument on the *aid* of Government to the Pacific Roads, in a nut-shell. Common sense demands that we should not only aid the Pacific Roads, but that we should make every railroad possible, in the public domain. Congress don't seem to understand, that our settlements have proceeded as far West as they will go, unless railroads do penetrate the great interior wil-

derness. Immigration is not going into the mountain regions, where alluvial lands are scarce, and Indians abundant, unless they can be aided by railroads. But, to make the case stronger, and a refusal utterly unreasonable, *no money* is asked. It is simply asked to aid them by guaranteeing interest. Of this we have spoken in our last number at length, and shall not go further into the details.

We give here the substance of the Bill for the completion of the Northern Pacific Railroad Company. The 1st Section says:

That the Northern Pacific Railroad Company, for the purpose of securing the construction and equipment of its railroad and telegraph line, may issue their first mortgage bonds payable in fifty years after date, bearing interest at the rate of six per cent. per annum, said interest payable semi-annually in coin at the Treasury of the United States, which bonds shall be secured by a mortgage on the whole line of said railroad, together with the rolling stock, fixtures, and property of every kind and description used thereon, and shall be made to the Secretary of the Treasury of the United States, and shall be signed by the President and Secretary of said company, and sealed with its corporate seal; and, as proof of its delivery, shall be filed and recorded in the office of the Secretary of the Interior; and, when so executed and delivered, shall, without further requirement, be deemed and taken to be a good and effectual conveyance of all the rights and property of said company as therein expressed, the laws of any State or Territory to the contrary notwithstanding.

2d Section provides, That whenever twenty or more miles of the road shall be reported made (in the manner provided), the Secretary of the Treasury shall cause to be entered on the bonds to the amount of \$40,000 per mile the *guarantee* of the United States to the holders of said bonds for the *payment of the interest* thereon at the Treasury of the United States, as they fall due, and the bonds thus guaranteed shall be delivered to the company.

The 3d Section provides, That the Government shall at all times use the telegraph and railroad for the purposes of the Government, and shall at all times have the *preference* in the use of the same; and that said Railroad Company shall have power to use any navigable water which said road may "run to or connect with," and to improve such water, and to collect and receive reasonable compensation therefor, and after said road shall be completed, the company shall at the end of each year pay into the Treasury of the United States a sum sufficient, with the compensation aforesaid, to pay all the interest accruing upon said bonds for the year then next preceding, and shall be entitled to draw from the Treasury any surplus that shall have accrued for compensation as aforesaid after

the payment of said interest for said preceding year; and at the expiration of five years from the time said railroad shall have been completed said company shall also be required to pay into the Treasury of the United States annually, on the first day of January, two per cent. of its gross receipts from the business of said road, (not including the amount accruing for Government transportation) which shall be applied *first* to the repayment of any deficiency of interest paid by the Government for said company, and the residue thereof shall constitute a sinking fund to be applied by the Secretary of the Treasury of the United States to the purchase and cancellation of said guaranteed bonds, or invested in the interest-bearing securities of the United States, and appropriated for the redemption of said guaranteed bonds at the maturity thereof until all of said bonds are paid.

Section 4th. Relates to the advance of guaranteed bonds on smaller portions of the road, west of the Rocky Mountains.

The remaining four sections relate to various details of the work.

The main part of this act is that which *guarantees* on the part of the United States, the *interest on the mortgage bonds* of the company. On this principle we have given our views in this and preceding articles. We can see no possible objection to it; and we think it the very *least* which the government can do with a due regard to its own interests. We are for economy; but we don't believe in standing up so straight, that we fall over backwards. We would improve our farm, if it did require a little credit.

The Improvement of the St. Francis Bottoms in Missouri & Arkansas.

We have expressed our opinions on the great principle of Government aid to public works. They are very simple. We think the Government *aid* (we don't mean subsidies nor gifts, but *aid* in the fair sense of the term) should be extended to public works; when 1. They are *national* and can not be done by the States; 2. When they are in the *public domain*; and 3. When these can be shown to extend the *basis* of taxation. What this nation wants now more than any one thing is to extend the *wealth* of the country, so that it will bear taxation. Every public work which does this is national, and worthy of aid in some form. Such a work, we think, is the one to improve the St. Francis Bottoms in Arkansas and Missouri. Those who know anything of the geography of that country know, that from a point nearly opposite to Memphis, to the neighborhood of Cape Girardeau (Mo.), and in the States of Arkansas and Missouri, there are immense tracts of land, in which are lakes, streams and swamps,

covering nearly the whole of it, and thus rendering it almost uninhabitable. As a consequence of this condition of things, it has remained a wild, and comparatively unoccupied region.

On the other hand, this very region is one of the richest, in soil and timber, in the world. Like the Valley of the Nile, it has for ages been fertilized by the rich alluvial of the lands above. If this tract can be drained and rendered cultivable, it will be a mine of wealth. In order to do this, it is proposed to make a railroad parallel and near the Mississippi in the general direction from Memphis to St. Louis, which will act also as a grand *LEVEE*. Such a road will, no doubt, in the end be a good thing; but it lies in two States, and will not be made by those States. It can not be made by individuals, for it offers no immediate profit to them. But, the reclamation of this vast body of land will be very profitable to two parties, the land owners and the Government of the United States. Now, the land owners propose to aid in this work by a contribution of a large quantity of their lands, and they ask the Government to aid them *indirectly*; for, it is not proposed to ask either money or lands of the Government. In order to explain this, we add the following statement from one of the Company:

"We ask no *land subsidy*, but the owners of 3,500,000 acres of alluvial land that will be reclaimed by this necessary work, subscribe to the Company nearly one-third of their land, to secure this work.

"The Company propose to incite homestead and actual settlement, by offering this land to actual settlers, on a credit not exceeding *twenty* years, at *three* per cent. interest, which will enable the Company to pay their bonds by maturity, and incite the poor to secure homes.

"We ask no bonds or money, we simply ask the Government to endorse the Bonds, and any failure to meet the interest involves a forfeiture.

"The Pacific Railroad subsidies force the Government to provide the interest on the Bonds issued.

"Not a bond to be issued until the Companies have filed with the Attorney General proof that they are owners in *fee simple* of at least 500,000 acres, and not then, until a section of twenty miles has been completed and the track laid thereon, and so on in sections of twenty miles.

"It seems to us that we have most amply guarded the Government against any loss, or burthen of expense."

So it seems to us; and if it depended on us, we should unhesitatingly vote in favor of it. The Government by such an arrangement is guarded against all possible danger, and it is only the "*penny wise and pound foolish*" policy which objects to aid in the improvement of the country.

The Projector of the Pacific Railroad.

The New York *Tribune* says:

The man who first projected the Pacific Railroad is nearly as numerous as his brother who first proposed General Grant for President. He has been identified with Dr. Carver, Asa Whitney, Colonel Benton, &c., &c. Mr. John King, of Dubuque, Iowa, now identifies him with Mr. John Plumbé, a Welshman, who settled at Dubuque in 1836, corresponded extensively with Eastern journals, made the first survey for a railroad from Lake Michigan, and urged the construction of a railroad to the Pacific, from the year 1836 onward. He called a private meeting in its behalf in the winter of 1836-'37, assembled a public meeting therefor in 1838, and wrote largely for the journals in advocacy of the project in all those years; urging the project in a memorial to Congress during the winter of 1839-'40. He spent the three following winters in Washington, urging the enterprise, and in 1849 went overland to California to observe the nature of the country. We think Mr. King makes out a pretty strong case.

In commenting on the above, the Milwaukee *Sentinel* says:

We have, connected with the *Sentinel*, an "old inhabitant" who recollects Mr. Plumbé very well, and we presume there are others in the State who will remember him as a constant attendant at Madison during the session of 1838-'39. In fact, Mr. Plumbé held some subordinate clerkship in the Legislature; but his chief object was to make the acquaintance of our prominent citizens (for in those days prominent citizens were members of the Legislature), with a view to press upon their attention the importance of a railroad across the then territory of Wisconsin from the lake to the Mississippi river, which should at some future time be extended westward to the Pacific Ocean.

Mr. Plumbé was a man of fine appearance and address. He presented his views with much force, and was generally held in high esteem by those who knew him.

In 1842 or '43, Mr. Plumbé had considerable celebrity as a Daguerrian artist, being proprietor of large establishments in Philadelphia and Boston, and we think New York, which were known by his name. We believe that he died several years since, but we have no doubt that he was one of the very earliest, if not the earliest, to foresee the importance and practicability of a Pacific Railroad.

In 1832, SAMUEL P. RUGGLES, the very able and world renowned statician of New York, and for many years connected with the Canal Department of the State, in his place, in the Legislature of New York, remarked that "the time would come when a railroad would be made from New York to the Pacific Ocean," and "that the transit would be made at least as fast as ten miles an hour!"

To this JOHN A. DIX, our present minister to Paris, responded, "that any man who would utter such a sentiment was a fit candidate for a strait-jacket and the lunatic Asylum," and expressed the fear that "his friend would soon become a charge to the State."

Both Mr. RUGGLES and Mr. Dix have lived to see the prophetic remark of the former almost fulfilled, while Mr. Dix, who publicly ridiculed the thought, became the first salaried

president of the imperially endowed enterprise, and a sharer in its corruptions and gains, Mr. RUGGLES is a calm looker on at the fulfillment of his early dreams and the wonderful progress and rapid development of our country's resources and greatness.

Dr. Hartwell Carver, as will be seen from the following extract from the *Atta Californian*, only claims to have published as early as 1841 or 1842.

"He claims to be the father of the Pacific road, and exhibits, as curiosities, the pamphlets which he published in favor of the enterprise in 1847.

"Well do we remember how eagerly we listened, more than twenty-five years ago, to Dr. Carver's earnest and interesting narration of facts and calculations in regard to the feasibility of constructing such a road, and the great importance, not only to our nation but to the world at large, of its being speedily built. He foresaw then the vast commerce which all now admit must be carried on over the Pacific Railroad with the crowded empires of Eastern Asia, and compiled and published voluminous statistics to prove it. He visited Europe, as well as the Atlantic cities, to try to induce capitalists to take hold of the great work. The first pamphlet published by him on the subject was early as 1841 or 1842. But he was regarded as a visionary or crack-brained enthusiast, and met with no substantial encouragement. Yet he had a rival in Asa Whitney, of New York, who represented a large amount of capital. After listening to Carver's plans, and gaining all the information from him possible, he started with a corps of engineers in 1845, to examine the route from Milwaukee to Council Bluffs. We saw him and his party in the interior of Wisconsin in July of that year, buoyant with hope and confident of finding a favorable route to the Missouri river, in which event he would extend his explorations further westward the next year. But he never reached Council Bluffs; his party got discouraged and disgusted with camp life—for it was an untamed wilderness, then, between the Mississippi and the Missouri rivers through Iowa—and they abandoned the survey. Carver spent several years and much money in the effort to enlist the Government and capitalists in the scheme, but in vain; and he too became disheartened and disgusted, and abandoned the hopeless task."

L. GAYLORD CLARK, Esq., the very able editor of the *Knickerbocker Magazine*, in a letter to the *Tribune* last summer, and commenting on the claims of Dr. CARVER, says:

"I beg leave to say, that I am a great way ahead of the Doctor in the prediction of this great enterprise, now hastening to its completion. In the early part of 1838, nearly ten years before, I wrote as follows in the editorial pages of my blessed old *Knickerbocker Magazine*:

"There will yet be built a railway from the Atlantic to the Pacific. Let the prediction be marked, for the work will be accomplished. This great chain of communication will yet be made with links of iron, 'long drawn out.' The treasures of the earth in that wide region are not destined to be lost. The mountains of coal, the vast meadow seas, the fields of salt, the mighty forests, with trees 290 feet high, the stores of magnesia, the crystalized lakes of valuable salts, these were not formed to be unemployed and wasted. The reader

is now living who will make a railroad trip across this vast continent."

It will be seen that Mr. CLARK, although evidently ahead of Dr. CARVER in his publication, yet he does not give Dr. CARVER as much credit as he deserves.

The real chronology is as follows:

S. P. RUGGLES, in the New York Legislature in 1832.

Mr. PLUMBE, from 1836, and onward.

L. GAYLORD CLARK, in "the blessed old *Knickerbocker Magazine*," in the early part of 1838.

Dr. H. CARVER, in "the first pamphlets published by him on the subject, as early as 1841 or 1842," while the pamphlets exhibited were published in "1847."

ASA WHITNEY "started with a corps of engineers in 1845," to examine the route.

THOMAS H. BENTON, (all honor to his big heart and capacious head), was the steadfast friend of the Pacific Railroad in Congress, and is entitled, if not to the honor of being its "Father," to having, at least, "stood God Father to it."

Mexican Advices.

CITY OF MEXICO, Jan. 26, via HAVANA February 4.—The Mexican Congress adjourned Thursday, after passing important bills for establishing Guymas and Rio Grande Railroad and telegraph.

Without having any details for the above, it is evident that the influence of Minister ROSCRANS is being felt in Mexico in favor of material development, which, in the end, means annexation. Now is the time for us to move up. The Central road is nearly completed. In a National sense, it is far more important that we push forward the Northern and Southern trunk lines. The Northern, although some 400 miles further north than the Central, is, climatologically, in its entire route, not materially different to Northern Illinois, and is important in developing our Northern frontier and preparing the way for the acquisition of the Hudson Bay territory, including the great Saskatchewan Valley, equal in extent to eight or ten States, and permanently uniting us with our Northern possessions. The Southern route, whether it crosses the continent on the 32d or 35th parallel, is equally important with the Northern, in a National point of view, and will meet the increasing wants and necessities of this vast inaccessible interior. Above all, it will add an empire to our domain.

A trunk line on the 35th parallel, with arms resting on St. Louis and New Orleans, practically, as suggested in our issue of last week, with a short branch down the Valley of the Rio Grande to some point near El Paso, would better accommodate the interests of the old States than one on the line of the 32d, and would also be equally efficient to meet the trade, supply the wants and Americanize the Northern States of Mexico, and add them to our broad acres.

Detroit and Fort Wayne Road.

Within the past month several Conventions have been held in Michigan and Indiana, to consider the question of building a railroad from Detroit to Ft. Wayne. The towns along this route have been moving in this matter, and striving, by their pledges of material support, to attract the line to their respective localities. This has given rise to considerable strife, and resulted in such assurances of local support as will secure the success of the scheme.

A rousing public meeting was held at Detroit, (the Mayor of the city presiding) on the evening of the 3d of January, at which there were sturdy advocates of the various conflicting routes, and, consequently, long and stirring speeches made, and able reports read, telegrams and letters received, and all the doings incident to such earnest gatherings of the people.

One of, if not the direct objective point sought by this company, is Indianapolis, where connection can be made with the whole South west; and the following table of distances will show that this new route has commanding merits:

	Miles.
Indianapolis to Ft. Wayne, present route	131
Same, by new route.....	105
Indianapolis to Detroit, present route....	290
Same by new route, via Adrian.....	237
Indianapolis to Toledo.....	225
Indianapolis to Detroit, via Adrian.....	237
Toledo to N. Y., via N. Y. C.....	737
Detroit " " ".....	677
" " " via new road to Buffalo....	649
Indianapolis to N. Y., via Toledo.....	962
" " " " Detroit.....	914
Same via Detroit and new road to Buffalo.	866
Detroit to Chicago, via Mich. Cent.....	284
Same via Adrian and Ft. Wayne.....	279

This is a solid advantage and not to be treated slightly. In considering this scheme as a link in an East and West thoroughfare, it assumes great importance. From Indianapolis it is one of the most direct lines to the Eastern seaboard, and, with a tunnel under the river at Detroit, a perfectly practicable work, and one for which the plans and estimates are made, the construction would be complete and the line rise to great consideration.

As a Cincinnati route this has been spoken of as important, but the speaker's idea was by making connection at Ft. Wayne with the route now in progress of construction from that place to this city, or by intersecting the Jackson and Ft. Wayne road near Hillsdale. This would be a round about road from Detroit to Cincinnati, and would not command much business between these points. It is going west of a direct north line from this city about thirty miles, and for which it must compensate by making the same distance Eastward. For this trade it is not worth considering.

Such a line, however, has great merit as a Cincinnati route by connecting with the Cin-

cinnati and Mackinaw road at Bryan. This road, long in contemplation, and upon which considerable work has been done, is the shortest road from the point of connection to the Ohio river, and by the saving of distance by the short line from Dayton to this city, nearly compensates for the increase of distance from Detroit to Bryan, and makes the line a square competitor with the Dayton and Michigan, and Cincinnati, Hamilton and Dayton roads, now used as the route for Cincinnati and Detroit trade.

Let any one take down his map and look at this route, and calculate upon a saving of ten miles between Cincinnati and Dayton, and he will see at once the force of our position.

This Cincinnati and Mackinaw road, like most others in this country, fell upon evil times, and after its great merits had been made known and a large amount of work was done upon it, was suspended two years since. It has been, however, closely watched, and in the general resurrection of worthy projects in Ohio, this one is coming to the surface again, and will soon be on its way to a rapid completion.

Our Detroit friends will therefore see that we can give them, by this connection, a Cincinnati route of great value and a successful competitor with the one now in use.

This meeting gave unquestionable evidences of an awakening in Detroit to the interests of that place. They were slow to arouse to the enterprising pitch reached elsewhere in Michigan, but, being once up to the mark, they will go ahead and doubtless lead in the present era of activity.

The fact that at this meeting \$100,000 was pledged to this new work is an omen of significance.

Grand Rapids and Indiana Railroad.

On the 19th inst. the order to show cause why a Receiver should not be appointed for the Grand Rapids and Indiana Railroad Company was heard before Judge Littlejohn, at Paw Paw, Michigan, but the case was continued until February 13. On the same day at Grand Rapids, Judge Withey, of the United States Circuit Court, appointed Jesse L. Williams, of Ft. Wayne, Receiver of the Company, which seems to be acknowledged as bankrupt.

This, then, it would seem, terminates the stormy career of this company. But with the true spirit of enterprise that now pervades the State of Michigan, a new company, said to embrace strong and experienced men, is already organized to continue the work from Allegan through to Mackinaw. It is expected the valuable land grant that was to have been given to the old company, will be conveyed to the new interest, giving it both means and an incentive to keep clear of the

embarrassments that killed the first company, and to go ahead with all possible despatch.

Thus the Michigan end is provided for; if, therefore, the Indiana people will follow suit, the scheme can yet be carried out, and that, too, within a short time, as there is a large amount of work done upon the line in that State.

WHOSE OX WAS GORED?—The public debt will be shown to have increased eleven or twelve millions during the past month. Subsidies to Pacific railroads are mentioned as helping to explain it. This is outrageous and infamous; and if we can't stop it at once, let us assign assets and go into bankruptcy.—*Cin. Times.*

The rule suggested above, if locally applied to Eden Park Extensions, would prevent the consummation of a number of leases which have been pronounced by some of our city press to be of a very obnoxious and not very virtuous character, but which the *Times*, we believe, is very much in favor of.

CHESAPEAKE AND OHIO RAILROAD.—The means for extending this road to the White Sulphur Springs with expedition, the *Dispatch* says, are secured, and the work will go bravely on. We learn further that the prospect of effecting arrangements (probably in the spring) for the rapid construction of the road to the Ohio is very good. The many advantages of the Chesapeake and Ohio line are well understood by capitalists. No proposed road is better known in Wall street, and none more highly appreciated. Gen. Wickham, with Messrs. Cabell and Maury, of the directory, have just returned from the North, and are much encouraged by the prospect.—*Lynchburg Virginian.*

A NEW DEPOT CONTEMPLATED.—The New Haven Railroad Company have just purchased the entire block bounded by Forty-fifth and Forty-sixth streets, and by Fourth and Madison avenues, of Messrs E. H. Ludlow and Co. of this city, for \$400,000. It is said that the Company intend to erect a large depot on this property.—*N. Y. Tribune.*

Chesapeake & Ohio Road.

We publish the following, not because the facts are new to our readers, but because they are announced in Congress, and have the weight of official sanction.

Months ago, we published the same ideas and many more that are of equal value, and belong to this scheme.

Mr. Wiley in a proposed amendment to Mr. Sherman's bill, said, in speaking of this road:

Coming eastward there is, in all the five hundred and five miles from the Ohio to the sea, no grade exceeding twenty-nine and a half feet to the mile, and only ten miles reaching that grade. From the Ohio river to the base of the Alleghany mountains, a distance of two hundred miles, there is no grade exceeding twenty feet to the mile. The minimum radius of curvature on this road is one thousand feet, and of this only two and

a half miles. Sixty per cent. of the road is straight. Compare these statements with the facts in relation to other roads. The maximum grade of the New York & Erie road is sixty feet, of the Pennsylvania Central fifty-three feet, of the Baltimore & Ohio road one hundred and sixteen feet to the mile; and the curvature of neither of these roads is so favorable, I believe, as that of the Chesapeake & Ohio road. These are important considerations, looking to speed, to safety, to economy and to the wear and tear of machinery. It would seem as if nature had been in a beneficent mood when she sunk down the grand range of the Alleghany mountains at the point where this road is located over them, and kindly bent the streams on either side to the same point, so as to afford a practicable and easy transit of the coming tide of commerce and communication between the mighty Valley of the Mississippi and the sea.

He also made these remarks on the several Eastern connections of this short central route, and on the other favorable features of the country:

From Richmond, its eastern terminus, a railroad is already made and is now in successful operation to Norfolk, a distance of one hundred miles, making the distance from Norfolk to the Ohio at the mouth of the Big Sandy by this route five hundred and five miles, and several miles less to the mouth of the Great Kanawha. Prior to the rebellion there was also made and in operation from Richmond to a place called West Point, on York river, a railroad of only some forty miles in length, making the distance from the Ohio to the Chesapeake only about four hundred and thirty or four hundred and forty miles. Another line has been surveyed with a fair prospect of there being a road built on it from Richmond to Newport News, a distance of seventy-five miles, thus affording three outlets by rail from Richmond to the Chesapeake and the Atlantic ocean. At Norfolk the harbor is unsurpassed by any along this continent. Its depth of water is twenty-eight feet, one foot deeper than the harbor at New York. There are also excellent harbors at West Point and Newport News, the former twenty-one and the latter twenty-two feet in depth.

Now, I wish Senators would refer to the maps of the country. If they will do so they will perceive that this Chesapeake & Ohio road, with its connections which I have just named, with the Chesapeake bay and the ocean, lies on an almost direct line from the mouth of the Chesapeake bay, the center of the Atlantic coast toward Cincinnati, St. Louis, and the eastern termini of the Pacific railways. It lies along a parallel midway between the rigors of a northern climate, so embarrassing to railroad operations in the winter time, and the humid and heated atmosphere of the lower southern latitudes, so apt to spoil so many articles of trade and commerce during the course of transportation. This road can never be seriously affected by the one or the other of these besetments of cheap, safe, and comfortable travel and transportation.

In order to show the great advantages of this route in distance to St. Louis, Cincinnati, Chicago, Louisville, and all the intermediate towns and sections of country that are to be benefited by the shortest and best route to tide-water,—the following tables are given, which speak volumes in behalf of this enterprise.

TABLE OF DISTANCES.

ROUTES.	By Chesapeake and Ohio railroad by way of Big Sandy.	By Chesapeake and Ohio railroad by way of Pleasant.	By Baltimore and Ohio railroad by way of Wheeling.	By Baltimore and Ohio railroad by way of Parkersburg.	Difference in favor of Chesapeake and Ohio railroad.	Difference in favor of Chesapeake and Ohio railroad by equated distances.
	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.
From Richmond to Big Sandy river.....	402	...	...	...	...	...
From Richmond to Point Pleasant.....	...	398	...	...	...	...
St. Louis to Richmond.....	885	895	...	...	...	...
Chicago to Richmond.....	...	792	...	...	...	...
Sandusky to Richmond.....	...	625	...	...	...	...
Cincinnati to Richmond.....	545	555	...	...	...	...
Lexington to Richmond.....	527	...	...	...	...	...
Louisville to Richmond.....	621	...	...	...	...	...
St. Louis to Washington.....	933	...	...	947	14	122
Chicago to Washington.....	...	840	881	...	41	149
Cincinnati to Washington.....	593	...	...	608	15	123
Lexington to Washington.....	575	...	...	709	134	242
Louisville to Washington.....	669	...	...	714	45	153
St. Louis to West Point.....	925	...	...	1,056	131	239
Chicago to West Point.....	...	832	989	...	157	265
Cincinnati to West Point.....	585	...	...	718	133	241
Lexington to West Point.....	567	...	...	817	250	358
Louisville to West Point.....	661	...	...	822	161	269
St. Louis to Norfolk.....	985	...	...	1,116	131	239
Chicago to Norfolk.....	...	892	1,049	...	157	265
Cincinnati to Norfolk.....	645	...	...	788	133	241
Lexington to Norfolk.....	627	...	...	877	250	358
Louisville to Norfolk.....	721	...	...	882	162	269

Chicago to New York (Allentown route).....	911 miles.
Chicago to Philadelphia (Pennsylvania Central).....	824 "
Chicago to Baltimore (Pennsylvania and Northern Central).....	802 "
Chicago to Richmond (Central and Ohio).....	792 "
Cincinnati to New York (Pennsylvania Central).....	756 "
Cincinnati to Philadelphia (Pennsylvania Central).....	669 "
Cincinnati to Baltimore (Baltimore and Ohio railroad).....	588 "
Cincinnati to Richmond (Central and Ohio railroad).....	545 "
Louisville to New York (shortest line).....	862 "
Louisville to Philadelphia (shortest line).....	775 "
Louisville to Baltimore (shortest line).....	694 "
Louisville to Richmond (Chesapeake and Ohio).....	621 "

In addition to all these advantages, the country through which the line passes is blessed with almost boundless resources to sustain a dense and active population and give business to the road.

Upon this point we make but one extract from a reliable authority, which is sufficient, we think, to invite a thorough look into this rich region.

"The iron of Virginia and West Virginia is of the best kind. Its superiority is attributed to the copper which is found mixed in very large quantity in the ore, which renders

it more ductile and increases its capacity for resistance and tension. The ores of Virginia and West Virginia are fully equal to the best Swedish and English. This fact has been proved by repeated experiments made by order of the Government of the United States. These beds of iron ore and veins of the richest coal are situated immediately on and along the line of this railroad route. Often the same mountain or hill contains the salts for fusion of the metal, as well as lime, argil, and wood for making charcoal. Thus all the material for the refinement of iron and its conversion into steel is found collected together in close proximity."

The Delaware and Raritan Canal Company, Camden and Amboy Railroad and Transportation Company, and New Jersey Railroad and Transportation Company, have petitioned to the Legislature of New Jersey for a reduction in the rates of transit duties now charged over their respective lines, and show conclusively that the heavy rates now charged is a virtual prohibition to a large class of freight. These companies now pay the State about \$300,000 per annum, which is a tax upon the producers and consumers of the State. It is productive of great damage to the companies also, as it is proved that over half the merchandise transported between New York and Philadelphia goes by

sea. A large portion of this would go by rail if the State did not exact this tax on commerce.

The receipts of the Western Union Railroad Company, for the week ending January 31:

	1869.	1868.	Increase.	Decrease.
Freight.....	\$8,936 35	\$11,910 11	.....	\$2,973 75
Passengers.....	3,470 90	3,552 52	.....	81 62
Express & Tel.	350 00	600 00	.....	250 00
Mail.....	375 00	375 00	.....	.....

Totals..... \$13,132 25 \$16,437 63 \$3,305 37

Receipts from January 1, to January 31:

1869.....	\$46,415 43
1868.....	41,990 65

Decrease..... \$4,424 78

Railroad Prosperity.

The past year has been one of increased prosperity to the railroad interests of the country.

From the tabulated statement below, it will be seen that the increase of receipts has been upon the lines of road passing through that belt of country that yielded large crops last year; this, together with the development of the country, is giving our road a permanent local business, and adding largely to their value and the certainty of their returns:

Railroads.	1869.	1868.	Total stock and bonds.	Earnings perm.
Atlantic and Great Western.....	507	\$63,000 05	\$4,724 816	\$9,319
Chicago and Alton.....	431	10,925 92	4,544 133	19,241
Chicago and North Western.....	400	17,762 74	6,154 647	17,366
Chicago and Rock Island and Pacific.....	1,152	48,925 383	13,429 514	11,657
Chicago, Great Island and Pacific.....	454	22,271 500	4,487 701	9,584
Illinois Central.....	703	35,068 704	7,823 463	11,150
Michigan Central.....	251	20,629 65	1,994 091	5,166
Michigan Southern & North. Ind.....	594	50,757 960	4,984 458	9,700
Minneapolis and St. Paul.....	329	15,446 354	4,570 014	13,693
Ohio and Mississippi.....	340	30,454 275	6,517 592	7,503
Pittsburg, Ft. Wayne & Chicago.....	468	27,150 000	5,014 030	8,718
St. Louis, Alton & Terre Haute.....	210	24,003 000	8,007 768	17,175
Toledo, Wabash and Terre Haute.....	521	20,000 000	1,023 892	9,161
Western Union.....	521	3,932 067	7,384	7,384
		764 971	4,244	
	373 750 552	76 143 250		

In addition we give the passenger receipts for the past year of four roads connected with our city:

OHIO AND MISSISSIPPI.	CIN'TI, HAMILTON AND DAYTON.
Jan.,..... \$94,926	Jan.,..... \$43,276
Feb.,..... 96,394	Feb.,..... 31,403
March,..... 101,880	March,..... 33,695
April,..... 104,630	April,..... 37,370
May,..... 118,858	May,..... 34,856
June,..... 109,452	June,..... 36,532
July,..... 101,840	July,..... 39,106
Aug.,..... 108,826	Aug.,..... 36,636
Sep.,..... 115,612	Sep.,..... 38,149
Oct.,..... 120,000	Oct.,..... 41,349
Nov.,..... 120,146	Nov.,..... 33,893
Dec.,..... 103,772	Dec.,..... 32,881

Total..... \$1,296,336

CINCINNATI, RICHMOND AND CHICAGO. Total..... \$442,446

CINCINNATI, RICHMOND AND CHICAGO.	DAYTON AND MICHIGAN.
Jan.,..... \$4,465	Jan.,..... \$23,918
Feb.,..... 4,352	Feb.,..... 22,552
March,..... 5,912	March,..... 28,084
April,..... 4,476	April,..... 27,157
May,..... 4,062	May,..... 25,458
June,..... 3,230	June,..... 28,117
July,..... 3,999	July,..... 26,732
Aug.,..... 4,647	Aug.,..... 27,795
Sep.,..... 5,080	Sep.,..... 37,991
Oct.,..... 5,674	Oct.,..... 35,720
Nov.,..... 3,782	Nov.,..... 28,674
Dec.,..... 7,547	Dec.,..... 26,769

Total,..... \$57,226

Total,..... \$338,957

RAILROADS IN IOWA—In 1860 there were less than 600 miles of railway in Iowa, with only two roads making any progress whatever, the disastrous effects of the financial crisis of 1857 not having yet passed away. Now there are more than 1,500 miles in operation, with nearly a dozen roads building or extending, and some half dozen more in immediate prospect. The following table will show in short space the uncommonly handsome railway work which has been done in Iowa since 1860:

Roads.	Miles in 1860.	Miles in 1869
Burlington and Missouri,	75	180
Chicago and Northwestern,	107	350
Dubuque and Sioux City,	100	175
Dubuque Western,	30	65
Des Moines Valley,	82	165
Keokuk, Mt. Pleasant and Muscatine,	25	25
Chicago, Rock Island and Pacific,	140	305
Ackley and Eldora, .....	...	22
McGregor and St. Paul, .....	...	70
Minnesota and Iowa Central, .....	...	40
Sioux City and Pacific, .....	...	75
Council Bluffs and St. Joseph, .....	...	70
Total,	559	1,542

If we add the one hundred miles (about) required to complete the Burlington and Missouri to Council Bluffs, and the fifty miles (about) required to complete the Chicago, Rock Island and Pacific to the same city, which will be speedily done, we shall have 1,692 miles of railway in the State, early in the year 1869.

THE UNION PACIFIC RAILROAD.—The Union Pacific Road, as yet incomplete, and dependent upon the business which it has itself created or stimulated, earned, in the year 1868, more than \$5,000,000, the details of which are as follows:

From passengers,	\$1,024,005 97
" freight,	2,040,223 19
" express,	51,423 08
" mails,	136,235 59
" miscellaneous,	91,626 27
" Government troops,	104,077 77
" Government freight,	449,440 33
Contractors' men,	201,179 09
From contractors' material,	968,430 32
Total,	\$5,066,651 61

If such an amount of paying traffic can be derived from local business, upon an average distance in operation of less than 700 miles, there can be no doubt of the road having all its carrying facilities taxed to the utmost, when the whole line is finished, to move the vast local and through freight. The work of construction is not stopped during the winter. On the contrary, so large a force is engaged that the gap of about 250 miles now remaining between the tracks of the Union Pacific and Central Pacific will be closed, and the whole line to the Pacific in operation by the early days of the ensuing summer.—*N. Y. Tribune.*

A bill has been introduced into the Michigan Legislature to enable the Jackson, Lansing & Saginaw Railroad to change its northern terminus to some point on Lake Superior.

A bar of cast lead, one inch square, breaks under a strain of 860 pounds; a bar of cast gold of similar dimensions will break under a strain of 22,000 pounds; a bar of cast silver will not break until the strain reaches 45,500 pounds; a bar of cast iron will remain intact until the strain exceeds 59,000 pounds; the best wrought iron will bear a weight of 84,000 pounds to a bar an inch square; and a similar bar of steel has been made of such tenacity as to lift a weight of 150,000 pounds before breaking. An alloy of two metals nearly always possesses greater tenacity than either one does separately. A strip of sound oak wood an inch square has been found to lift and sustain 17,300 pounds before breaking, and a similar strip of locust, 20,000 pounds.

Condition of New York Central, Hudson R. R. & Harlem Railroads.

The following is a statement of the year's business of the New York Central, Hudson River, and Harlem roads, as made to the State Engineer at Albany, which we copy from the *Tribune*:

NEW YORK CENTRAL RAILROAD CO.

STOCKS AND DEBTS.

Total amount capital stock now paid in,	\$28,780,000 00
Funded debt as by last report,	12,069,820 18
Total am't now of funded debt,	11,458,904 11
Floating debt as by last report,	None.
The amount now of floating debt,	None.
Total amount now of funded and floating debt,	11,458,904 11
Average rate per annum of interest on funded debt,	6 17-100 per ct.

EARNINGS AND CASH RECEIPTS AND PAYMENTS.

FIRST, EARNINGS.

From passengers,	\$4,063,791 46
From freight,	9,491,427 25
From other sources,	826,084 67
Total,	\$14,381,303 38

SECOND, RECEIPTS.

From passengers,	\$4,063,791 46
From freight,	9,491,427 25
From other sources as follows, viz.: interest, dividends on stock held in other railroad companies, use of engines and cars, work done at shops, telegraph, transportation of mails, and miscellaneous items,	826,084 67
Total,	\$14,381,303 38

THIRD, PAYMENTS OTHER THAN FOR CONSTRUCTION.

For transportation expenses,	\$9,238,162 87
For interest,	857,802 68
For dividends on stock, am't and rate per cent. (one of 3 per cent, one of 4 per cent.),	2,110,248 00
Rents,	60,000 00
U. S. Tax on Earnings,	100,830 26
Sinking Fund,	111,182 38
Cash on hand,	1,903,077 19
Total,	\$14,381,303 30

HUDSON RIVER RAILROAD.

STOCKS AND DEBTS.

Capital stock, as by charter,	\$4,000,000 00
Amount of stock subscribed,	3,770,926 59
Am't paid in, as by last report,	9,981,500 00
Total amount now paid in of	

capital stock,	13,932,700 00
Funded debt, as by last report,	5,394,550 00
Total am't now of funded debt,	6,074,960 00
Floating debt, as by last report,	1,167 00
The am't now of floating debt,	1,167 00
Total amount now of funded and floating debt,	6,076,127 00
Average rate, per annum, of interest on funded debt,	6 9-10 per cent.

EARNINGS, AND CASH RECEIPTS AND PAYMENTS.

FIRST, EARNINGS.

From passengers,	\$2,000,474 81
From freight,	2,988,523 09
From other sources,	534,613 90
Total,	\$5,523,611 60

The above to be stated without reference to the amount actually collected.

SECOND, RECEIPTS.

From passengers,	\$2,000,474 81
From freight,	2,039,125 94

From other sources as follows, viz.:

Rents,	51,445 63
Mails,	46,875 00
Interest,	48,658 13
Miscellaneous,	387,635 14
Total,	\$5,574,214 65

THIRD, PAYMENTS OTHER THAN FOR CONSTRUCTION.

For transportation expenses,	\$3,793,319 11
For roadway, grading, bridging, etc.,	291,306 92
For interest,	443,692 76
For dividends on stock amount and rate, 8 per cent.,	1,003,880 00
To U. S. tax on passengers and mail,	51,227 44
To cash on hand,	1,388 42
Total,	\$5,574,214 67

HARLEM RAILROAD COMPANY.

STOCKS AND DEBTS.

Capital stock, as by charter,	\$8,000,000
Amount of stock subscribed,	7,000,000
Amount paid in, as by last report,	6,785,050
Total am't now paid in of capital stock,	7,000,000
Funded debt, as by last report,	5,993,625
Total amount now of funded debt,	5,086,325
Floating debt, as by last report,	None.
The amount now of floating debt,	None.
Total amount now of funded and floating debt,	5,086,325
Average rate per annum of interest on funded debt*,	6 2-3 per ct.

* Real estate mortgages not included in the above, \$18,000.

EARNINGS, CASH RECEIPTS, AND PAYMENTS.

FIRST, EARNINGS.

From passengers,	\$1,095,200 83
From freight,	1,208,575 99
From other sources,	452,455 71
Total,	\$2,756,232 53

SECOND, RECEIPTS.

From passengers,	\$1,095,200 83
From freight,	1,208,576 99

From other sources, viz.:

Mail service,	13,050 00
Expresses,	126,637 55
Rents receivable,	50,164 13
Haulage of cars,	73,217 75
Miscellaneous,	1,274 08
New Haven Co., (use of road),	188,112 20
Total,	\$2,756,232 53

THIRD, PAYMENTS OTHER THAN FOR CONSTRUCTION.

For transportation expenses.....	\$1,772,687 57
For interest.....	375,466 82
For dividends on stock amt and rate per cent, 8 per cent.....	580,423 16
To payments to surplus fund.....	.....
U. S. tax on earnings.....	27,654 98
Total.....	\$2,756,232 53

Winter Working of the Pacific Railroad.

It used to be thought that the great difficulty in the way of a railroad to the Pacific Ocean was in the Sierra Nevada—first, as to the engineering difficulties it presented, and next in the obstacles to regular running presented by its winter snows. The engineering difficulties have been triumphantly overcome, and it is now becoming apparent that the snow obstacles are much less on the California end of the road, from Sacramento to the Wasatch Mountains, than on the eastern end from Omaha. The snow belt on this end of the line is narrow. West of the Sierra there is no snow at all, and very little falls at an elevation of 3,000 feet. About 22 miles of shedding protects the track from the deepest snow of the high Sierra, and there is no reason to doubt this protection will be adequate, with the use of the snow plow at intervals. Descending the eastern slope, and across the plateau of Nevada to Salt Lake, the climate is dry and very little snow falls, the elevation ranging from 4,000 to 5,000 feet, with a much milder climate than goes with the same altitude east of Salt Lake. Thus the only trouble from snow in a line of 662 miles, from Sacramento to the north end of Salt Lake, is the narrow belt in the high Sierra, which is mostly roofed in.

"The Union Pacific Railroad, on the contrary, runs through a snow country for its whole length of 927 miles, from Omaha to Echo Summit. At Cheyenne, 516 miles west of Omaha, the road has an elevation of 7,040 feet, which is eight feet more than the highest point of the Sierra Nevada crossed by the Central Pacific. Only 22 miles further west the elevation is 8,424 feet; or 1,392 feet more than the highest point on the Central; and for about 380 miles further west to Echo Summit, the average elevation is over 6,500 feet. Bearing these facts in mind, it is easy to understand the late reports of the road being blockaded by snow since December 4, west of Cheyenne, and of construction labor being impeded in the mountains this side of Green river. The President of the Central Pacific gives it as his opinion that the distance of great elevation on the Union Pacific is too long to make covering practicable; hence it is not improbable that nearly every winter there will be more obstructions from snow on the latter road than on the former.

"The foregoing facts also explain how it is that the Central Pacific is now making such rapid progress. Since the first of July, when transportation across the Sierra summit fairly began, the company has built three hundred miles of road. The rate at which grading and track-laying progressed has not been lessened since winter set in. Although the climate in the great basin is cold, it is very dry, leaving so little moisture in the soil to freeze that grading is going on as usual, the plow being used as easily as in the warm season. By the first of January the grade will be finished to the head of Salt Lake, 662 miles east of Sacramento, and about 200 miles

east of the present end of the track. The iron for 40 miles of track is already on cars along the farther end of the road; 100 miles more of tracking is on hand in this city and at Sacramento, and more is constantly arriving by sea. The company has increased its motive power through orders by the Isthmus, and has made such progress in forwarding its own road material that it is now able to carry more general freight, and the shipments by boat from this city have been resumed as usual."—*San Francisco Bulletin*.

Railroads in Illinois.

The following is the bill regulating fares, as it passed the Illinois Legislature. The Governor withholds his signature, in order that the opposing views of railway officials may be heard:

A bill for an act concerning railroad rates for the conveyance of passengers in the State of Illinois:

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the General Assembly*, That all railroad corporations organized and doing business in this State, or which may hereafter be organized and do business in this State, under any act of incorporation or general law of this State, now in force, or which may hereafter be enacted by the General Assembly of this State, shall be and are hereby limited to such rates or charges for the conveyance of passengers in this State as are hereinafter prescribed, or which may hereinafter be prescribed by law.

SEC. 2. No such railroad corporation shall, after the first day of March next, charge or receive for the conveyance of any person over its road, or any portion thereof a greater sum than three cents per mile. Nor shall any other corporation, person or persons, use or operate any railroad now constructed, or which may hereafter be constructed in this State, and charge for the conveyance of passengers over such road a greater sum than is prescribed for such conveyance in this act.

SEC. 3. Any railroad corporation which shall collect or receive any greater sum for the transportation of persons than is authorized by this act, shall be liable to the party aggrieved in four times the excess so collected, or received, and the same may be recovered, together with costs and a reasonable attorney's fee, to be ascertained upon the trial, in an action of assumpsit in any court of competent jurisdiction; and any officer, agent, or employe of any of the aforesaid corporations, who shall knowingly and willfully collect and receive for the transportation of persons on any railroad in this State any greater sum than is authorized by this act, shall be guilty of a misdemeanor, and shall be liable to indictment in any court of competent jurisdiction, and, on conviction thereof, shall be punished for each offense by a fine of not less than one hundred dollars nor more than one thousand dollars, or by imprisonment for not less than thirty days nor more than one year, or both, in the discretion of the court before which such conviction shall be had.

SEC. 4. The term "railroad corporation" in this act shall be deemed and taken to mean all corporations, companies, associations or individuals now owning or operating any railroad within this State. Provided, The provisions of this act shall not be applicable to

horse railroads; and, provided further, that this act shall not be construed, nor have the effect to release the Illinois Central Railroad Company from the payment into the Treasury of the State of Illinois of the per centum on the gross or total proceeds, receipts or income derived from said Illinois Central Railroad and branches, stipulated in the charter of said company.

SEC. 5. This act shall not apply to any railroad in process of construction, or which shall be constructed, until the expiration of ten years after thirty miles of such railroad shall be actually constructed, so as to permit the running of cars over the same; nor shall this act apply to any railroad in this State, not exceeding thirty miles in length, unless such railroad shall become consolidated, or form running connections with some other line of railroad; and this act shall not be construed so as to place any greater restrictions upon railroads hereafter to be constructed, than upon railroads now in existence.

SEC. 6. This act shall be deemed a public act, and be in force from and after its passage.

Montreal and its Connections—The Portland Cut-off to Lake Ontario.

"The Montrealers are becoming alarmed for their railway connections, seeing that the building of the Lamont Valley Railway, *i. e.*, from Ogdensburgh to Portland, is sure to come about. The *Montreal Gazette* tells us that so easy a route has been found that contractors have offered to do the whole work for \$25,000 per mile, except in the most difficult part of the pass through the Green Mountains. The money is fast being raised; townships which have the power offering \$30,000 to \$75,000 out of their taxes—most of them being but six miles square, and farmers putting down their names for \$100 to \$500 stock—some of them for \$1,000. The country is alive on the subject, and a good deal of enthusiasm is shown. This is the road that will compete with the Grand Trunk for Portland and Boston traffic, and render these points independent of it to a great extent. But if it will cut off the Grand Trunk how much more will it affect the Intercolonial? The one takes a short cut across the country to the Atlantic, while the other, reckoning the Grand Trunk as part of its general system, goes winding away to Montreal and Quebec; then to Riviere du Loup, and thence stretching away through the wilds of New Brunswick, and among the scanty population of Nova Scotia, only to reach the Atlantic at another and but little better point. The alarm expressed by the Montrealers is the best evidence of the value of the proposed road to the commercial world, and the supreme folly of the Intercolonial."—*Canadian (London) Free Press*, January 15.

A correspondent in the same issue, writing from Montreal under date January 12, says:

"The communication by rail with Portland is a great deal more circuitous than it need have been, and the people of Montreal are now seeing that they made a mistake in not constructing the Grand Trunk to Portland—the former Atlantic and St. Lawrence Railway—in nearly at an air line. There is now in course of construction the completing links of a railway which will unite Ogdensburgh with Portland, when the former place will compete favorably with Montreal for a portion of the western grain trade—there being but

little difference in the distances by rail. To place Montreal into better position, and to afford more rapid communication, it is proposed to run a branch from one of the lines leading from this city to the south, through the county of Mississippi, to connect with the Portland and Rutland Railway, shortening the distance to the seaport very considerably. But there is danger that the sharp Yankees will be too fast for the less enterprising people of the Province of Quebec."

[There is no mistaking the significance of the Portland project for a direct route west, with connections through to Lake Ontario, and also to Ogdensburg on the St. Lawrence, in the State of New York. And what most moves the anxiety of Montreal is, that the Canada cities on Lake Ontario, including all that portion of Canada which is bounded on the east and south by the Niagara river and Lake Erie, are interested in the carrying out of the Portland plan, since thereby they will enjoy additional communication with the seaboard in Maine, without making a detour via Montreal, which is away north far from all direct lines from the Atlantic seaports, towards and to the west.

Montreal does not underrate the competition with which she is menaced by the Portland enterprise, though the fact that Montreal has put herself in opposition to the New England scheme, is the very best incentive which could possibly be administered to stimulate the friends of the new work, and aid them to raise funds in its behalf.—*Ed. Reg.*]

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It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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SIZE NO.	NO. OF FORMS.	PRICES.	SIZE NO.	NO. OF FORMS.	PRICES.
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2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	66
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

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out piston, plunger, valve, or movable parts of any kind.IT CANNOT GET OUT OF ORDER, OR FREEZE UP.
WITH THE**STEAM SYPHON WATER-STATION**

a locomotive can raise water, with its own steam, to fill
 its tender in the same time as from an ordinary tank;
 thus dispensing with tanks, pumping ma-
 chinery, and men to attend them.

IT IS AN EFFICIENT

FIRE-ENGINE,wherever steam power is used; as at Machine Shops
Shops, Elevators, &c.,

AND BY FAR,

THE BEST BILGE PUMP,

for Steam Vessels, in use

For Circulars and other information, address,

STEAM SYPHON COMPANY,
 48 Dey Street,
 NEW YORK.

VERY CHOICE**Oil Lands**

IN

Kentucky & Tennessee,

FOR SALE BY

T. WRIGHTSON,

167 Walnut Street,

CINCINNATI

THROUGH
 —FROM—
CINCINNATI TO NEW YORK
**WITHOUT CHANGE OF
 COACHES!**

—VIA—

Atlantic & Great Western R'y.

PASSENGERS leaving CINCINNATI by the A. & G. W.
 Railway, on Saturday Morning, by the 6:00 a.m. Lightening
 Express, go

THROUGH TO NEW YORKWithout Detention arriving in New York 3:15 p.m. next
day, Sunday2 Through Lightning Express Trains for New York,
Boston, and all points East.**TIME TABLE OF EXPRESS TRAINS.**

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance
between Cincinnati and New York.

The NIGHT EXPRESS leaves Sunday
 night instead of Saturday night. All other
 Trains leave Daily, Sundays excepted.

DIRECT CONNECTIONS } At Salamanca with Erie Railway.
 } At Mansfield with Pitts., Ft. Wayne
 } and Chicago Railroad.

THIS IS THE ONLY ROUTE
 TO THE
OIL REGIONS OF PENNSYLVANIA

Passengers to the Eastern Cities will find the

Atlantic & Great Western R'y**A most Desirable Route.**

The Engines, Cars, and other Equipments, are entirely
 new, of the most modern, substantial, and approved de-
 scripti on, unequaled by any Railway on this continent.

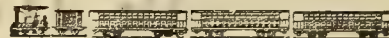
SLEEPING COACHESProvided for all Night Trains, and Smoking Cars for all
Trains.

Ample time is allowed, at all hours,
 for meals.

No effort will be spared by the Company to render a trip
over the Road pleasant and comfortable to the Passenger.**CONNECTIONS ARE CERTAIN!****FOR THROUGH TICKETS AND BAGGAGE
CHECKS,**

Apply in Cincinnati at New Depot of Cincinnati, Hamilton
 and Dayton Railway; or at northeast corner of Broadway
 and Front streets, and at No. 80 Fourth street, nearly op-
 posite Post Office. Also at any of the principal Railroad
 and Steamboat Offices, in the West and South-west.

W. B. SHATTUCK, Gen'l Ticket Agt. L. D. RUCKER, Supt.

CENTRAL RAILROAD
 —OF—
NEW-JERSEY.


On and after Monday, May 21, 1866, three Express
 Trains will leave New York daily (Sundays excepted) via
 Central Railway of New Jersey, and Allentown, leaving
 Pier 15, foot of Liberty street, North River, at 7:00 and
 9:00 a. m. and 18:00 p. m. On Sundays, one Express Train
 at 8:40 p. m.

Passengers by this route save 60 to 130 miles, and Two
 Hours' Time over other Lines, with but one change
 cars to Chicago or Cincinnati, and but two to St. Louis.
 Passengers from the East by Sound Boats or by Rail in the
 morning, will have time for Breakfast before leaving the
 City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a. m.—CINCINNATI EXPRESS, for the West, arrives
 at Harrisburg 2 p. m., Pittsburgh 12 night

9:00 a. m.—MORNING EXPRESS, for the West. This
 train leaves New York Two Hours later than other Lines,
 and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with
 Lehigh Valley Railway to Mauch Chunk; at Reading with
 Philadelphia & Reading Railway for Pottsville, arrives at
 Harrisburg at 4:30 p. m. Without change of cars from
 New York to Harrisburg.

8:00 p. m.—EVENING EXPRESS, for the West with
 but one change to Cincinnati or Chicago, and but two to
 St. Louis. This train leaves New York Two Hours later
 than other Lines, and arrives at principal places West at
 same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p. m.—EXPRESS TRAIN from Cincinnati, arrives
 at New York at 6:00 a. m. next day.

3:00 a. m.—EXPRESS TRAIN, from the West, leaving
 Pittsburgh at 4:20 p. m.; passes Harrisburg at 3:00 a. m.;
 Reading at 4:49 a. m.; Allentown at 6:00 a. m.; Easton at
 7:09 a. m. Through cars from Pittsburgh to New York.

9:05 a. m.—FAST LINE, from the West, leaving Pitts-
 burg at 10:10 p. m.; passes Harrisburg at 9:05 a. m.; Read-
 ing at 10:52 a. m.; Allentown at 12:22 p. m.; Easton at
 1:10 p. m. Through cars from Pittsburgh to New York.

7:25 a. m.—WAY TRAIN, from Harrisburg, passing
 Reading at 10:49 a. m.; Allentown 12:20 p. m.; Easton at
 1:35 p. m. Through cars from Harrisburg to New York.
 Arrives in New York at 5:20 p. m.

2:10 p. m.—FAST MAIL, from the West, leaving Pitts-
 burg at 3:10 a. m.; passing Harrisburg at 2:10 p. m.; Read-
 ing at 4:30 p. m.; Allentown at 6:00 p. m.; Easton at
 7:20 p. m. Through cars from Harrisburg to New York
 Arrives in New York at 10:45 p. m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO
ST. LOUIS & CHICAGO.
Monday June 24.**INDIANAPOLIS & CINCINNATI****RAILROAD.****Three Through Trains Daily.**

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

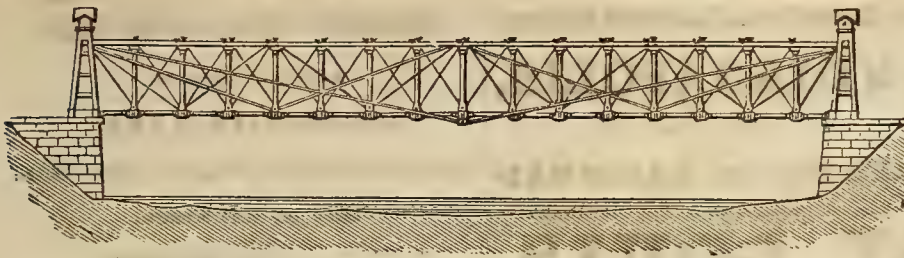
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Ac- commodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnett House-
 Spencer House and Gibson House Offices; also at the
 Depot. The Passenger Depot of the Indianapolis & Cin-
 cinnati Railroad is within a few squares of all the pri-
 cipal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent

F. B. LORD General Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburg, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers, and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail and work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enable us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order, Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Copper, Sheet Iron and Boiler Work; and every article pertaining to the repair or renewal of Locomotive Engines.

KNOX & SHAIN,

ENGINEERING & TELEGRAPHIC

INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,

STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

Buys and sells Stock, Bond and other Securities on Commission only. Negotiates Loans and makes collections

AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
8. E. Cor Fourth and Main Sts.

The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent,
myll Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AND—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

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350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD SUPERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS,

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, an one which shall be uniformly reliable in its carrying weight

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.

Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to tent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON



Fare to Washington City same as to Baltimore.

L. WILSON, Master of Transportation.
M. COLE, General Ticket Agent.
O. W. BROWN, General Passenger Agent.

} Dec. 67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	.....	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Burnet House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.

JANUARY 5th, 1868.

Cincinnati to St. Louis Without Change of Cars.

Ohio & Mississippi Railroad,

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI,	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR,	12 00 m.	2 00 a.m.	8 10 "
Leave " "	12 20 p.m.	2 10 "	" "
Arrive VINCENNES,	5 15 "	8 35 "	" "
Leave " "	5 20 "	6 40 "	" "
Arrive ODIN,	9 35 "	10 30 "	" "
Leave " "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL,	9 55 "	10 50 "	6 40 "
Arrive ST. LOUIS,	1 00 a.m.	1 30 p.m.	9 40 "
Trains Arr. at Cincinnati,	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Offices, 132 Vin Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE,
General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS,
CINCINNATI
-AND-
LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS,
CAIRO,
CHICAGO,

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7 00 am	10 50 pm
Indianapolis and Cairo Express.....	7 20 am	2 30 am
Cairo and St. Louis Express.....	2 20 pm	4 08 p.m.
Springfield, Quincy and St. Joseph Express.....	2 20 pm	4 02 pm
Chicago Lightning Express.....	7 15 pm	11 30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	8 50 pm	6 15 am

No change of cars between Cincinnati, St. Louis and Chicago.
Elegant Sleeping Cars on all night trains.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10 10 am	8 35 am
Cornersville and Cambridge City.....	4 00 pm	9 15 am
Lawrenceburg.....	4 45 pm	2 20 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
F. B. LORD, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH

BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES. Constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

EDWIN J. HORNER,

Successor to

McDANIEL & HORNER,



Locomotive and Railroad

CAR SPRING MANUFACTURER,

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Elgin and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works June 8

THE SCHENECTADY
LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING
LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

-AND ALSO TO-

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding the work to any part of the country without delay.

JOHN ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—1½ to 24 inches in diameter, and branches, for same, &c.,

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
BY G. MORRIS.

Philadelphia, Wilmington & Baltimore

RAILROAD!



FOUR PASSENGER TRAINS DAILY

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY
4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.
On Sundays, 4.30 A. M.; 11.30 P. M.

Leave Baltimore for North and West 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. { Editors.

CINCINNATI:

THURSDAY, FEBRUARY 11, 1869.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
" column, single insertion.....	5 00
" " per month.....	10 00
" " six months.....	40 00
" " per annum.....	80 00
" page, single insertion.....	75 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,
Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:20 A. M.
Morrow Accommodation.....	5:20 P. M.	8:40 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:00 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond and Chicago, Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:00 P. M.
Bellefontaine and Sandusky.....	6:30 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	3:00 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:30 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 A. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Indianapolis, Rushville and Cincinnati.....	7:00 A. M.	10:45 A. M.
St. Louis Express.....	2:30 P. M.	5:10 P. M.
New Castle and Cambridge, City, 7:00 A. M.		10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.

Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Marietta.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	19:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Pittsburgh & New York Express.....	8:30 P. M.	10:35 A. M.

PACIFIC RAILROADS.

Operations of the National Bank System, and its connection with Public Works.

Perhaps the reader may not see at first the connection between these two topics. But, we will make it clear in a moment. The Government issues to National Banks *three hundred millions of dollars* in circulation. This is a dead loss of eighteen millions of dollars per annum. Because the Government can just as well issue its own notes instead, and with them *buy three hundred millions of bonds*, and extinguish eighteen millions of interest. This is so palpable, that everybody admits it. Eighteen millions of dollars will pay the interest on three hundred millions of dollars; *threefold as much as all the railroads in the public domain* ask. Now, suppose we had greenbacks substituted for the National Bank notes, the Government would save eighteen millions a year, and the railroads be made. That is the connection between these subjects; and, we hope the intelligent reader will make a note of it, and look at it straight in the face. We do not pretend to know what would be the effect on the mercantile public, except this, that if the exchange be made in moderate installments, it could work no serious mischief of any kind. What we want to show distinctly, and we have done it in this simple statement, that the idea of endangering the Treasury, or increasing the public debt, by guaranteeing the interest on the railroad bonds, is on its face false and hypocritical. It is of a piece with "Our own Correspondent," when he puts over his letters, "SWINDLERS," "CORRUPTION," and other staring capitals, to juggle the public mind and diddle fools. The attack made by Washington Correspondents, who earn their living by fictions, on Senators and Public Officers, because they support public improvements, is not only an evidence of their own corruption, but to the last degree reprehensible. It will soon work its own cure, by creating a universal contempt for Washington Correspondents.

But, we must proceed to the operations of National Banks, and let a little light on their performances. How is it that while almost every stock or commercial enterprise in the country is much below par, the stock of all banks is above par, and some of them very high? We will make that plain in a moment. In October, 1868, the following were the leading elements in the condition of the National Banks:

Capital.....	\$420,634,511
U. S. Bonds.....	414,664,800
Bank Note Circulation.....	295,763,489
Discounts.....	657,668,847
Three per cent. Certificates.....	59,080,000
Surplus Funds.....	114,091,644

Here we observe, that there was on hand

the neat little sum of *one hundred and fourteen millions of dollars*, after all its usual dividends had been made. *This surplus was more than one-fourth of their whole capital.*

Now, let us see how these enormous profits were made. If we said that these banks made over 8 per cent. on all their discounts, no banker will deny it; for, in addition to ordinary interest, which probably exceeded that, they had immense amounts of exchange and other dealings; so that, probably, not one of the National Banks will be willing to accept 8 per cent. as interest on their discount. Well, they have their discounts, their bonds, their *three per cents*, and other interest bearing securities. How much do they get on these:

8 per cent. on \$657,668,847 is.....	\$52,613,509
6 p. ct. on \$414,664,800 U.S. Bonds, 24,878,688	
3 p. ct. on \$59,680,000 Certificates, 1,790,400	

Total Income.....	\$89,392,597
Capital.....	\$420,634,511
Profits on capital.....	21 per cent.!

Now observe that these banks have *no capital whatever except the bonds they have deposited for circulation*. They are allowed to give as security for circulation their own capital! It is true this capital is the liability of the United States Government, and therefore *does* secure the circulation. But, look at the practical working of this affair. The actual *capital* of the bank pays 6 per cent. from the Government; and the banks make 15 per cent. on nothing (!) except the credit given by the public! Now, we do not say that there is anything in this wrong, or to be complained of; but we *do* say, when objections are made to simply guaranteeing the *interest* on the bonds of railroads, for fear it will involve the Government in debt, it is time to inquire for what purpose and in what interest the Government wastes *eighteen millions per annum* on these National Banks? The question can not be answered with any reason; for this whole eighteen millions is *a clear gift to the banks*. The reason for this has long ceased; and, if legislators and intelligent newspaper writers are driven to such flimsy excuses for opposing public improvements, it is time to inquire what is the necessity of a great banking monopoly, and especially why it should be endowed at the expense of eighteen millions a year. The National Banks and the Union Pacific Railroad are the only monopolies in the country.

But, it will be interesting to observe another operation connected with the operations of the banks and the Government jointly. This is *locking up money*. Note the following amounts of money locked up on the 1st of October:

Specie.....	\$19,000,000
Legal Tender.....	90,000,000
Bank Notes.....	20,000,000
Sub-Treasury.....	110,000,000

Total.....\$239,000,000

cific Railroad, 1,725 miles, not over 250 miles will have an elevation exceeding 3,000 feet above the sea, while of the Union Pacific Railroad, 1,100 miles, of a total length of 1,657 miles, are more than 4,000 feet above the sea; more than 500 miles of it has an elevation of 7,500 feet above the sea.

The relation of the great water line of the St. Lawrence to the proposed work will vastly increase its utility and importance. This line, whether its eastern outlet be the harbor of New York or the Straits of Belle Isle, extends half way across the continent. With a railroad from its western extremity to the Pacific, the land carriage of freight, for at least eight months each year, will not exceed 1,750 miles. The cheapest of all modes of transportation is by water, when the conditions are favorable. Freight will be transported from the head of Lake Superior, by water, in the season of navigation, at one-third the cost of its transportation by railroad. The proposed work, consequently, is the complement of a grand highway of commerce across the continent, more than one-half of which is navigable for ships of 1,000 tons burden. With the slight elevation of the whole route, with the favorable grade and alignment of the railroad, and with a water line for more than one-half the distance of unequalled excellence, the Northern Pacific Railway must become the route of commerce between ocean and ocean. For cheapness of transportation it must be without a rival. Its advantages will be such as will enable it to become the route to America, and to Europe of the products of the East, and secure to this country, beyond question, a trade which has enriched every people through which it has passed, and which, for the future, if we will only take the necessary steps, will be monopolized by our own.

The amount of commerce between the Atlantic and Pacific coast must far exceed, from the first, the capacity of any one or two roads. Even were this not so, such commerce should never be committed wholly to one company. The experience of this country is conclusive that neither State nor national governments are competent to secure from railroad companies efficiency of service and reasonable charges. A monopoly of route is certain to be followed by negligence on the one hand, and oppressive exactions on the other. The public will never be well served till its patronage is to be won, under a free competition, by superior fidelity, efficiency and economy. The oppression of one road is certain to lead, in time, to the construction of another, as a matter of self defence and protection on the part of the people. Such being the fact, the true policy is the opening, simultaneously, were it possible, of two lines. We may as well anticipate a state of things which is certain to happen, and seasonably apply the proper corrective.

The importance of the relation that Lake Superior sustains to the territory lying to the west and north-west of it, is well illustrated by that sustained by Lake Michigan to the territory lying to its west and south-west. This lake, as part of the great water line already described, must always be one of the chief outlets for such territory. Its value and influence, in this respect, can hardly be estimated. It has added millions of inhabitants to the territory dependent upon it, and hundreds of millions to the value of its products. Yet the area of arable land in this territory, now so rich and populous, and whose trade has lined the western shore of this lake with flourishing cities, one of which now occupies

the third rank in the United States in population and commerce, will bear no comparison with that which must have its future outlet through Lake Superior. A circle drawn from Chicago upon a radius of 600 miles includes, to the west, all the fertile portion of the great plain; while west and north-west from Lake Superior a circle drawn upon a radius of twice such extent would not exceed the limits of fertile soil. A line of considerably less length than that from Chicago to the Missouri River would connect directly Lake Winnipeg with Lake Superior. The former is the center of a hydrographic basin, second only in extent, in fertility and in the ultimate value of its products, to that of the Mississippi. Lake Superior seems to have been placed by the hand of Providence in the center of the continent to render this extensive and valuable, but now distant territory, accessible both to settlement and to commerce. It must, for all time, command the commerce of a territory thrice larger than that dependent upon Lake Michigan, and though portions of it are now embraced within the British possessions, its commerce must wholly pass through our territory and be monopolized by our own people; and, in time, to commercial will be added political ties.

In two or three years more the national revenues resulting directly from these works will far exceed the charges upon the advances made, so that long before the principal sum falls due, it will have been many times repaid. But such a statement by no means covers the whole ground. The construction of the great Continental Line has been the means of carrying, westward, fully 300 miles, the interior system of railways, and of adding, already, more than 1,000 miles to its aggregate of completed line. In balancing the account the increase of revenue due to this additional mileage, and which probably far exceeds that derived from the great trunk line and its branches, is to be offset against the advances made. A correct account would show the Government to be largely the debtor, while such balance must continue to increase in much greater than simple ratio. The additional advantages which are to result from the opening of a line from ocean to ocean are certain to transcend all ordinary calculation.

It is objected, that no additions should be made to the public debt by aiding works like the one proposed. It is now in vogue to denounce all such propositions as swindles—as frauds upon the public treasury. The slightest consideration will show the ridiculousness of all such talk. If the railroads of the United States could have been constructed in no other manner, it would have been the soundest policy for Government to have assumed their construction, even without the expectation of realizing a dollar of direct income from them. The actual cost of these works have been about \$1,200,000,000. The interest on this sum is \$72,000,000. They have created a commerce worth \$10,000,000,000 annually. Such a commerce has enabled the people to pay \$400,000,000 into the public treasury with far greater ease than they could have paid \$100,000,000 without them. But for them it would have been impossible for the people to have maintained the war against the rebellion, or sustained the financial burdens which it imposed, but which have been borne with such comparative ease. No line of ordinary importance was ever constructed that did not, from the wealth it created, speedily repay its cost, although it may never have returned a dollar to its share or bondholders. If this be true of local and unimportant works, how much more so must it be of great lines, which

will open vast sections of our public domain, now a desert, but abounding in all the elements of wealth. No one pretends that the aid asked for would not build the road. If so, Government will ultimately be repaid tenfold all its advances.

While, fortunately, there are but few cases which would justify the Government in extending aid to Railroads, there are some in which its interposition becomes its highest duty. No act could be so promotive of the general welfare as the opening, by its aid, both to the Northern and Southern routes. Upon the latter is an immense extent of territory, full of natural wealth, but which, without a railroad, is utterly beyond the reach of settlement or commerce. Aid extended to both lines, instead of weakening the public credit, would greatly strengthen it.

CONTEST FOR THROUGH TRADE.

Efforts of Union Pacific to Monopolize.

The Chicago *Railway Review* says:

"Col. Hudnutt, of the Union Pacific Railroad Company, now in Idaho, recently delivered a speech before the Legislature of that Territory, which points to a strong desire on the part of the Union Company to claim the trade of China and the East through Puget Sound, as a rival of the Central Pacific road. Suppose, says Col. Hudnutt, that the Central and Union Pacific Railroads have formed their junction near the north end of Salt Lake. Looking from this point to the north-west is a wide valley, at whose head is a very low pass across the Raft River range of mountains, and light grades will carry us over this and down on the western slope to Raft River. Rounding the northern point of the Goose Creek mountains, we find ourselves on the great plateau of the Snake River plain. But one mountain barrier crosses our pathway clear to Portland and Puget Sound. The magnificent Columbia has cut its way through the snowy Cascade Range, and opened an easy route, without grades or deep snows, to the Pacific Ocean. By this route the heavy grades of the Sierra Nevada are entirely avoided, as well as the most fearful depth of snows—both great items in the successful operation of railways. Leaving the question of snow out of consideration, the engines of the Union Pacific Railroad can haul from Salt Lake basin to Omaha three full laden freight trains, which the Central trains can deliver. So much for the question of grade. Again, the distance to Portland is not materially increased, if at all. And in building to the Sound we are meeting the important trade of India and China. The ocean currents and the winds are so ordered that vessels from China and Japan take a northerly course and make our coast near the straits of San Juan de Fuca—the entrance to Puget Sound. Now a vessel could run down the safe and commodious harbor of Puget Sound, ship her cargo by rail to Chicago, New York, and Boston, and by telegraph receive returns of sale and the amount placed to her credit in some banking house in Puget Sound—all this accomplished in less time than she could have made the trip along the coast from the Straits of San Juan de Fuca to San Francisco."

This is almost as cool as the perpetual snows of the Sierras, and its frigid influence is as powerful in Congress as are the irresistible avalanches to which twenty miles of the track of the Central is exposed. If the Government has no other object in existing than to subsidize the "Union Pacific," if it has no other territory to develop than is to be found on the line of the "Union Pacific," and such points as it may choose to diverge to, or if the corrupting influence of the Union Pacific is sufficiently well organized and its ramifications so extensive, as to control all the legislation of Congress, then we may expect to see the above scheme carried out to the exclusion of all others. But, we have that confidence in the natural good sense of the Nation and the integrity of Congress, as to induce us to believe that our Northern and Southern frontiers are to be developed, and the natural trade of either route is not to be diverted by circuitous pathways from its legitimate channels, merely for the purpose of passing it through the "quill" of the "Union Pacific." The truth is, that either of these two routes are of much greater national importance, as well as equally subservient to the wants of commerce, and infinitely of greater value in the development of the internal resources of the country than the "Union," hence, we contend that the country can not afford even to delay their construction.

The above, however, clearly points out the source from which emanates much of the opposition to the construction of what is deemed "competing routes." The "Union" would like to have a "clear field," and nothing in the world would so gratify "Chicago" and "Illinois statesmen" as to see the "Union Pacific" starting at San Francisco, with arms resting on Puget's Sound and the Gulf of California, and in one grand trunk terminating in Chicago. Would not that be glorious!

Blue Ridge Railroad.

The Andersonville *Intelligencer* says: "We are gratified to learn that the reconnaissance of the line of this road, made last week by Col. James P. Low and Maj. Thomas B. Lee, was entirely satisfactory. The reconnaissance was confined to that part between Walhalla and the North Carolina line, where the work had been partially done. The report is, that the Stump House Tunnel is more advanced than heretofore stated, there being but 1,500 feet of heading to drive, with six working faces; that it can be driven through in ten months; that the road can be completed to the North Carolina line in twenty months, and that the whole road to Knoxville can be finished in same time, if funds are provided.

We note with great pleasure every evidence of advancement with this magnificent work. A working party of engineers will be put in the field within ten days, and estimates furnished for contracts in a very short time. We shall keep our readers constantly advised of every progress made by this road.

Our friends in Tennessee are wide awake to the importance of this enterprise, and hail

with satisfaction every indication of its progress. The Knoxville *Press and Messenger*, in alluding to a paragraph copied from this paper, says: "

"We hope there will be no failure upon the part of the Legislature of Tennessee to provide in some way for the construction of the Knoxville and Charleston Railroad to a connection with the Blue Ridge Railroad. This great railroad is an imperative commercial necessity, and with the completion of the Knoxville and Kentucky Railroad, will make sure the development of the resources of Knoxville, and indeed of all East Tennessee beyond peradventure."

Railroads.

Proposed Lease of the Cincinnati, Hamilton and Dayton Railway Company to the Atlantic and Great Western Railway Company and the Erie Railway Company, including Assignments of the Leases of the Dayton and Michigan Railroad Company, and of the Cincinnati, Richmond and Chicago Railroad Company—To take Effect April 1, 1869.

THIS INDENTURE, entered into between the Cincinnati, Hamilton and Dayton Railroad Company, a corporation created by the laws of the State of Ohio, the party of the first part, the Atlantic and Great Western Railway Company, a corporation organized and consolidated under the laws of the States of New York, Pennsylvania and Ohio, party of the second part, and the Erie Railway Company, a corporation created by the laws of the State of New York, party of the third part, WITNESSES:

Recital of Railroad and Leases of C. H. and D. Railroad Company.

WHEREAS, The party of the first part owns and operates a railroad with a narrow and broad gauge track, and all the appurtenances belonging to the same, from the City of Cincinnati to the City of Dayton, in the State of Ohio; and also possesses and operates the railroad of the Dayton and Michigan Railroad Company, from the City of Dayton to the City of Toledo, in the State of Ohio, under a perpetual lease of the same, which took effect on the 1st day of May, 1863, the railroad tracks of the two companies being continuous and connecting at the City of Dayton; and also possesses and operates the railroad of the Cincinnati, Richmond, and Chicago Railroad Company, from a point near the City of Hamilton to the State line of Ohio and Indiana, near the City of Richmond, in the last named State, with a right to enter the said City of Richmond over the tracks of the Richmond and Miami Railroad Company, under a lease from the said Cincinnati, Richmond and Chicago Company, to be entered into and take effect at or before the taking effect of the lease hereby made:

A and G. W. Railway Company

And whereas, the party of the second part owns a railroad with a broad gauge track of six feet in width, from the City of Dayton, where it connects, forming a continuous line, with the broad gauge tracks of the party of the first part, to Salamanca, in the State of New York, where it connects with the tracks of the party of the third part.

Erie Railway Company and its Lease of A. and G. W. Railway.

And whereas, the party of the third part proposes to operate the railroad of the party of the second part in connection with its own, under a lease to be entered into by and between said parties of the second and third part for a period and term of years, the same as that created hereby, to take effect at or after the taking effect of this lease; and, whereas, it is proposed that the said party of the third part, in taking said lease of the road of the party of the second part, shall also become the assignee of the rights and interests, and assume and bear the burden of the covenants, conditions, obligations and liabilities of the party of the second part under this indenture.

Lease of C. H. and D. R. R. for 50 Years from April 1, 1869.

Now, therefore, in consideration of the payments, rents, issues, profits, covenants and conditions herein contained on the part of the party of the second part, and of the assumption thereof by the party of the third part, to be by them paid, rendered, performed and fulfilled, the party of the first part has let, leased, demised and rented, and by these presents does let, lease, demise and rent unto the party of the second part, for the period and term of fifty years, beginning with the first day of April, in the year one thousand eight hundred and sixty-nine, fully to be complete and ended, the railroad of the party of the first part, from and including its terminus in the City of Cincinnati, to and including its terminus in the City of Dayton, consisting of its road-bed, bridges, viaducts, superstructures, depots, depot grounds, water-tanks, station-houses, ware-houses, machine-shops, machinery, engine-houses, turn tables, machine and road tools, its rolling stock, locomotives, cars and equipments of every description, together with the right of way to and over all lands upon and over which the bed of said road is located and constructed, and all things appertaining to said right of way and road bed, together with all side tracks and appurtenances of said road as a railroad, and all its real estate and lands of every description wheresoever situate, and all its rights and interests therein or growing out thereof.

Assignment of Lease of D. and M. R. R.

And also for the same period and term of fifty years, the party of the first part transfers and assigns to the party of the second part, all its rights, interests and property in and under the said lease of the Dayton and Michigan Railroad Company to the party of the first part, of the railroad and property of the said Dayton and Michigan Railroad Company, and for the said term the exclusive right to operate the said railroad from Dayton to Toledo, under and according to the same, as the said party of the first part would have the right and be bound to do, together with all the equipment of the same now in use thereon and belonging to the said company or to the party of the first part.

Assignment of Lease of C. R. and C. R. R.

And also for the same period and term of fifty years, the party of the first part transfers and assigns to the party of the second part, all its rights, interests and property in and under the said lease, of the Cincinnati, Richmond and Chicago Railroad Company to

the party of the first part, of the railroad and property of the said Cincinnati, Richmond and Chicago Railroad Company, and for the said term the exclusive right to operate the said railroad of the Cincinnati, Richmond and Chicago Railroad Company, under and according to the same, as the said party of the first part would have the right and be bound to do, together with all the equipment of the same now in use thereon and belonging to the said company or to the party of the first part.

Franchises Assigned.

And for the period and term aforesaid, the party of the first part also transfers and assigns to the party of the second part, so much of the franchises and privileges of the the party of the first part as are or may be necessary to enable the said party of the second part fully and completely to enjoy the benefits and exercise the rights hereby demised and assigned, or meant so to be; and particularly all such as are usually exercised in and about the operations of the said railroads, or may be necessary for the construction, repair and improvement of the same or any extension of the same, or any branch or branches thereof, and to collect, demand and receive tolls and emoluments thereof during said term; and for all the lawful purposes of this lease, and fully to enjoy and exercise the benefits and privileges thereof, in the use and operation of said railroads, the right to use the same and corporate authority of the said party of the first part, of the said Dayton and Michigan Railroad Company, and of the said Cincinnati, Richmond and Chicago Railroad Company.

Privileges of Contracts with other Railroad Companies.

And for the period and term aforesaid, the party of the first part also transfers and assigns to the party of the second part all its rights, privileges and franchises held, owned and exercised by the party of the first part, under and by virtue of certain contracts with the Southern Michigan and Northern Indiana Railroad Company for the use of depot and side track privileges at Toledo, with the Cleveland and Toledo Railroad Company for the use of its bridge across the Maumee river and track on the west side of said river, and with the Richmond and Miami Railroad Company for the use of its track from the terminus of the Cincinnati, Richmond and Chicago Railroad to and into the depot at Richmond, in Indiana, and all other rights, privileges and franchises owned and exercised under any similar or other contracts with any other railroad companies, the said party of the second part paying under the same all rentals and charges required by the same, and doing and performing all the covenants and stipulations in said contracts contained.

Franchises Reserved and Property Excepted.

But the said party of the first part reserves to itself the franchises of being a corporation, and of keeping up its organization, and the right to defend and maintain suits, and to take all requisite steps for the protection of its rights as a corporation, and of its stockholders; and also excepts and reserves out of and from this lease all its personal property, money, investments, choses in action, bills receivable, debts due or to become due, bonds, stocks and other personal assets, not constituting any part of the equipment and furniture of said roads; and also suitable rooms and the furniture therein, in the

depot building of the party of the first part, in the City of Cincinnati, in which to keep its books, papers, and as an office for the keeping of its accounts and holding its corporate meetings, and the right to the joint use of the vault in the present office of the said company.

Rents Reserved.

In consideration whereof, the said party of the second part renders and pays as and for the rent of the said property and rights hereby demised and leased, as follows, to wit:

For First Three Years \$425,060 Per Annum, Payable Monthly.

For and during the first three years of the said term, as and for the rent of the said railroad and appurtenances of the said party of the first part, from Cincinnati to Dayton, the annual sum of four hundred and twenty five thousand and sixty dollars, in equal monthly installments of \$35,421 66 $\frac{2}{3}$ each, payable on the first days of each month, beginning on the first day of May, 1869.

\$303,275 Per Annum, Payable Monthly.

And as and for the rent of the said Dayton and Michigan Railroad, the annual sum of \$303,275, in equal monthly installments of \$25,272 91 each, payable on the first days of each month, beginning on the first day of May, 1869.

\$43,750 Per Annum, Payable Monthly.

And as and for the rent of said Cincinnati, Richmond and Chicago Railroad, the annual sum of \$43,750, in equal monthly installments of \$3,645 83 each, payable on the first days of each month, beginning on the first day of May, 1869.

For Remainder of Term—Annual Sum \$495,060, Payable Monthly.

And for the remainder of said term of fifty years, beginning with the first day of April, 1872, as and for the rent of the said railroad and appurtenances, of the party of first part, from Cincinnati to Dayton, the annual sum of \$495,060, in equal monthly installments of \$41,255 each, payable on the first day of each month, beginning on the first day of May next thereafter.

\$453,275, Payable Monthly.

And as and for the rent of the said Dayton and Michigan Railroad, the annual sum of \$453,275, in equal monthly installments of \$37,772 91 $\frac{2}{3}$ each, payable on the first day of each month, beginning on the first day of May next thereafter.

\$70,750, Payable Monthly.

And as and for the rent of the Cincinnati, Richmond and Chicago Railroad, the annual sum of \$70,750, in equal monthly installments of \$5,895 83 $\frac{1}{3}$ each, payable on the first day of each month, beginning on the first day of May next thereafter.

Payable in Cincinnati—Aggregate Rents.

Each and all of said payments and installments of rent to be paid to the said party of the first part on the days aforesaid, at the office of the said party of the first part, in the City of Cincinnati, the said annual payments and rents, making in the aggregate the annual sum of \$772,065, payable in equal monthly installments, as aforesaid, of \$64,340 41 $\frac{2}{3}$ each, for the first three years of said term; and for the remainder of said term, the said

annual payments and rents, making in the aggregate the annual sum of \$1,019,085, payable in equal monthly installments as aforesaid, of \$84,923 75 each.

Covenant to Pay Rents Free of Certain Taxes—To Pay other Taxes—To Perform Covenants of Leases Assigned.

And the said party of the second part hereby covenants and agrees to and with the party of the first part, that the said party of the second part will well and truly pay, or cause to be paid, to the party of the first part, the said several installments of rent as above reserved, at the place and on the days when they severally become due and payable, free from all taxes, payable on so much thereof as may be divided among stockholders as dividends on stock, to which the same are or may be liable; and also that the party of the second part will pay all taxes, levies and assessments that may become due and payable upon the property hereby demised and leased during the term aforesaid, but not including any unpaid taxes levied on the same for the year 1868, payable by the party of the first part, and the said the Dayton and Michigan Railroad Company, and the said, the Cincinnati, Richmond and Chicago Railroad Company, for or on account of the same, and for all licenses for carrying on any of the operations of the said railroads, and all taxes levied upon the earnings and income accruing from the operations of the said railroads; and also that the party of the second part will faithfully perform and fulfill all the stipulations, covenants and conditions, on the part of the party of the first part, by it to be kept, performed and fulfilled, and contained in the said leases of the said the Dayton and Michigan Railroad Company and the said, the Cincinnati, Richmond and Chicago Railroad Company, hereby transferred and assigned or meant so to be, hereby agreeing fully to indemnify and save harmless the party of the first part from any and all loss, cost, expense and damage for or on account of the same, that may ensue in consequence of any breach or nonperformance on the part of the said party of the second part of all or any of the same.

To Perform other Contracts Assigned and Receive Consideration Thereof.

And also that the party of the second part will perform, fulfill and complete all outstanding contracts of the party of the first part, in reference to the use and operation of the said railroads with other railroad companies, or for the carriage of passengers or goods, or the mails of the United States, and with warehouse men, grain elevators and shippers, the party of the second part receiving, and hereby acquiring the right to receive, its proportionate part of the considerations of said contracts for the service to be performed by it in completing the performance of the same, fully indemnifying and saving harmless the party of the first part from all loss, cost, expense and damage that may happen or issue in consequence of any failure on the part of the party of the second part to perform and comply with the same.

Covenant to Keep Roads in Repair—Penalty for Neglect.

And also that the party of the second part will keep up and maintain the several railroads hereby demised in good and thorough repair, at all times and in all particulars, both as to structures and equipment, and will

run and operate the same for the public convenience, and in all respects as the party of the first part, or the said Dayton and Michigan Railroad Company, or the said the Cincinnati, Richmond and Chicago Railroad Company are now respectively, or may be, required by law to do, and as the several railroads are now built, maintained and operated, both as to the narrow gauge and broad gauge tracks, and that it will use all reasonable efforts to maintain, develop and increase the local and through business and traffic of the said several railroads; and in the event that the said several railroads, or any of them, shall at any time be or become out of repair, in violation of the terms of this covenant, according to the judgment and report of a civil engineer to be appointed by the party of the first part, then the said party of the first part may enter upon the said road or roads, and under the direction of the said engineer, make all needful repairs of the same, all the costs and expenses attending which shall immediately thereafter be paid to the said party of the first part by the party of the second part, on demand.

Covenant to Extend Double Tracks of C, H. and D. R. R. to Dayton.

And the party of the second part covenants and agrees to and with the party of the first part, that the party of the second part, within one year from the first day of April, 1869, shall extend or cause to be extended, the complete double track of the railroad of the party of the first part as now commenced, both of the narrow and broad gauge, to the city of Hamilton, in Butler County, Ohio; and that within five years from the day aforesaid, it will extend or cause to be extended, in the same manner, the said double tracks of said railroad, both narrow and broad gauge, from the City of Hamilton to its terminus in the City of Dayton, with all necessary and convenient side tracks and switches, and other necessary and proper incidents and appurtenances; and the party of the second part further covenants and agrees, as a security for the performance of this stipulation, that before taking possession of the said railroads hereby demised, it will cause to be deposited in the hands of —, as trustee for the said parties, to be held by him in Cincinnati, the mortgage bonds of the Boston, Hartford and Erie Railroad Company, guaranteed by the Erie Railway Company, to the nominal or par value of five hundred thousand dollars, on which, during the progress of the work of extending said double tracks, the party of the second part shall have the right to receive the interest as it falls due and is paid, and which said bonds may be surrendered by said trustee to the party of the second part, one fifth in amount thereof when the said double tracks are completed to the City of Hamilton, one half the remainder thereof when the said double tracks are completed one-half the distance from the said City of Hamilton to the City of Dayton, and the remainder thereof when the said double tracks are finally completed to the City of Dayton; but in the event that the said double tracks are not extended to the City of Hamilton within the time herein limited, or thereafter shall not be extended to the City of Dayton within the time limited therefor, then, upon the demand of the party of the first part, the said trustee shall proceed to sell the said bonds, or so many of them as may be necessary, and convert the same into money, which he shall, from time to time, as may be necessary, pay over to the party of

the first part, to be by it applied to the work of extending the said double tracks, under its direction, as far as the said fund will permit; and in case the said trustee shall decline to act, resign, or become unable to serve, or die, the said bonds, or the proceeds thereof arising as aforesaid, shall pass to and vest in a substitute to be appointed by the joint consent of the parties of the first and second parts as often as the occasion may arise.

Covenant to Pay all Damages in Operating Roads.

The party of the second part further covenants and agrees to and with the party of the first part, that it will bear and pay all losses and damages that may happen or accrue for injuries to person or property in the operating of the said railroads hereby demised, or either of them, and that it will defend, at its own cost and charges, all suits and actions for the recovery of damages for alleged injuries and losses to persons or property, by any act, neglect or default of the said party of the second part, in the management, use and operation of said railroads, or either of them, that may be brought against the party of the first part, or the Dayton and Michigan Railroad Company, or the Cincinnati, Richmond and Chicago Railroad Company, and pay all judgments that may be rendered against it or them, or either of them, for or on account of the same, and indemnify and save harmless the party of the first part, and the said railroad companies its lessors from all costs, expenses, loss and damage on account of or by reason of the same.

Covenant to Pay \$10,000 Per Annum to Keep up Corporate Organizations.

And the party of the second part further covenants and agrees to and with the party of the first part, that for the purpose of enabling the said party of the first part, and the said the Dayton and Michigan Railroad Company, and the said the Cincinnati, Richmond and Chicago Railroad Company, to keep up and maintain their several and separate corporate organizations, and to pay the expense of the same, the party of the second part will and shall pay, or cause to be paid, to the party of the first part, to be by it applied and expended in and for the purpose aforesaid, in addition to other sums herein reserved and agreed to be paid, the sum of ten thousand dollars annually during the term of this lease, to be paid in equal monthly installments, on the first day of each month during said term, beginning on the first day of May, 1869.

Covenant to Permit Certain Mortgages to be Made and Renewed.

And the party of the second part further covenants and agrees to and with the party of the first part, that, whereas, at the date of the execution of this lease there are incumbrances upon the said several railroads hereby demised, by way of mortgages upon the same to secure the payment of bonds issued by said several companies, owning the same, as follows, to-wit: Upon the Cincinnati, Hamilton and Dayton Railroad several mortgages, amounting in the aggregate to two millions thirty-two thousand dollars, and on which the annual interest amounts to the sum of one hundred and forty-five thousand and sixty dollars; and upon the Dayton and Michigan Railroad several mortgages, including a mortgage to the amount of seven hundred thousand dollars, which mortgage is not yet made or said bonds issued, but which, it has been agreed, shall be made and issued, and to

take effect and have priority in right to this lease, amounting in all to the sum of four million three hundred and thirty-two thousand five hundred dollars, the annual interest on which amounts to three hundred and three thousand two hundred and seventy-five dollars; and upon the Cincinnati, Richmond and Chicago Railroad mortgages amounting to the sum of six hundred and twenty-five thousand dollars, including an additional mortgage not yet made, but to be made for the sum of sixty-five thousand dollars, and subject to which, also, this lease is to take effect, the annual interest on which amounts to forty-three thousand seven hundred and fifty dollars; and, whereas, the said mortgages will mature and said bonds become due and payable before the end of the term of this lease; therefore, in order to provide means for the payment of the said several mortgage debts, and the cancellation of the said bonds, the said party of the first part, the Dayton and Michigan Railroad Company, and the Cincinnati, Richmond and Chicago Railroad Company, may cause to be made and delivered such other additional mortgages upon their said railroads and other property hereby demised, in lieu of any such mortgages now existing, or agreed to be made as above specified, and subject to which this lease is made, as may be necessary for said purpose, and said new mortgage or mortgages shall have, when made as aforesaid, the same priority of lien over the lien of this lease as the said mortgage or mortgages in lieu of which the same may be made, have or may have; provided, however, that the whole amount of the said mortgage debt, as above specified, shall never thereby, as to the said priority over this lease, be in any wise increased.

Covenant to Insure.

And the party of the second part further agrees to keep the said demised property, or so much and such parts thereof as are subject to damage by fire, insured in good and solvent companies, at its own expense, in a sum or sums equal at least to the amount in which the same is or may be insured by the party of the first part at the time this lease takes effect; and, in case of loss or damage, the insurance money shall be applied by the party of the second part to repair and restore the same; and the party of the second part also agrees in part fulfillment of this stipulation, to accept from the party of the first part assignments of such policies of insurance already taken out upon the same by the party of the first part, and in force at the time possession of said property is delivered under this lease, refunding to the said party of the first part a proportionate part of the premiums paid by it, for the unexpired time of said policies.

Covenant to Purchase Supplies on Hand to Amount of \$150,000.

And the said party of the second part further covenants and agrees to and with the party of the first part, that on taking possession of the demised premises and property under this lease, it will also take and pay for, in cash on delivery, all supplies or materials on hand for the repair and operation of said roads, not including old rails, at their cost price, to the said party of the first part, but the said party of the second part shall not be required to take and pay for more of the same than shall amount to the sum of one hundred and fifty thousand dollars in value, according to an inventory and account of the same to be prepared and furnished by the party of the first part.

Covenant to Restore Property on Termination of Lease.

And it is hereby further mutually covenanted and agreed by and between the said parties, that on the taking effect of this lease, or as soon thereafter as practicable, a complete inventory and appraisal shall be made of all the movable property other than supplies and materials for the repair and operation of the said roads, constituting its rolling stock, machinery, equipment, and tools, and which, by the terms of this lease, pass to the party of the second part as part of the demised property, and that on the expiration of the term of this lease, or its termination otherwise, and sooner, the said party of the second part shall restore and deliver to the party of the first part the said demised premises and property in as good order and condition as they now are, including an equal amount in value of the said rolling stock, machinery, equipment and tools as aforesaid.

Covenant to Keep Separate Accounts of Earnings and Expenses.

And it is hereby also mutually agreed by and between the said parties, that the said party of the second part shall keep separately, just and true accounts of all the earnings of the said railroad of the party of the first part, of the Dayton & Michigan Railroad and of the Cincinnati, Richmond & Chicago Railroad, and of all expenditures made for and on account of the same, in order to ascertain and adjust the rights and liabilities of the said party of the first part to and with the Dayton & Michigan Railroad Company, and to and with the Cincinnati, Richmond & Chicago Railroad Company, under the leases of the said last named companies to the said party of the first part, as also for the purpose of enabling said several companies to make their reports to the stockholders of said companies, and to the authorities of the State of Ohio as is or may be required by law, and said books and accounts shall, at all reasonable times, be open to inspection, and for the purpose of making extracts and copies, by the said parties in interest.

Covenant to Arbitrate Differences.

And it is hereby mutually covenanted and agreed by and between the said parties, that in the event of any difference of opinion arising between them touching the true meaning of this indenture, or any of the stipulations, or the rights of the parties under the same, that the said difference shall, as often as the same may arise, be referred for final arbitration and award to three competent and disinterested persons, one to be chosen by each party, and the third by the two thus chosen, who shall proceed, upon reasonable notice, to hear and determine the matter in controversy, in the city of Cincinnati, and the award of any two of whom, in writing, shall be final; and in the event that either party shall neglect or refuse for thirty days after written notice of the appointment of an arbitrator by the other to appoint an arbitrator on its part, then the party giving such notice may appoint the second arbitrator, and the two thus chosen shall choose the third, who shall proceed to hear and determine the matter in controversy as before provided, and the award of any two of whom shall be final.

Clause of Forfeiture.

And it is hereby further mutually covenanted and agreed, and this indenture is made upon this express condition, that in case the party of the second part shall fail to pay any

of the sums of money hereby reserved or agreed to be paid as rent for the said property hereby demised, or any other sum of money herein agreed to be paid by the said party of the second part, or any taxes, levies and assessments herein stipulated to be paid by said party of the second part, or any part of any of said sums, or of said taxes, levies and assessments, and the same shall remain unpaid in whole or in part for sixty days after the same shall have become due and payable, without notice or demand; or if the said party of the second part shall, for a like period of sixty days after notice thereof, neglect or refuse to perform and abide by the award of arbitrators, made under the provisions of this indenture, or shall otherwise violate any of the covenants of this lease on its part to be kept and performed, then this lease and the term thereby created shall, at the option of the party of the first part, wholly cease and determine; and the said party shall have the right to re-enter and possess the said property hereby demised, and all its former rights and estate therein; and this indenture and all the provisions thereof, and the estate thereby created, shall thenceforth be void and of no force, except so far as to enable the party of the first part to collect the rent or other money due and unpaid by virtue thereof up to the time of the forfeiture thereof, and also any damages the party of the first part may sustain by reason of the default of the party of the second part; and the party of the first part may thereupon actually re-enter and take and keep possession of the demised property and premises, and upon each and every part thereof, without delay or legal process. And any of said bonds then remaining in the hands of the said trustees as above provided, as security for the extension of the double track of said party of the first part to the city of Dayton, shall, notwithstanding such forfeiture, continue to remain in the custody of said trustee, and to be applied as hereinbefore provided to the payment of the cost of said extension of the double track, and also to the payment of any sum or sums that may then be due to the party of the first part under this lease, and to the payment of any damages that may be awarded or adjudged against the said party of the second part, for the breach of the same.

And to facilitate and secure the enforcement of this clause and condition, the said party of the second part does hereby irrevocably nominate and appoint, as its attorney in fact, Stanley Matthews, Esq., or any other attorney at law who may at the time be authorized to act, by the party of the first part, with authority, in the name and on behalf of the said party of the second part to execute and deliver to the party of the first part, a surrender of this indenture of lease and of all its rights under the same, and on its behalf to deliver possession to said party of the first part of the said demised premises and property, and also in its name and on its behalf to appear in any suit or suits or actions, brought by the party of the first part, against the said party of the second or third parts, to recover possession of said demised premises, or any part thereof, in any court or courts having jurisdiction thereof, to waive the issuing or services of process therein, to confess judgment in the same, and to waive all error and right of appeal.

Covenant that Erie Company shall be and Remain Lessee of A & G. W. Railway, Otherwise this Lease to Determine.

And the said party of the third part hereby covenants and agrees to, and with the party of

the first part, that it will and shall become the lessee of the road and property of the said party of the second part, for the term of fifty years, beginning with the first day of April, 1869; and that it will continue and remain such lessee during the said term, that it will become and continue to be during the period of the same, the assignee of all the rights and interests of the party of the second part under this lease; and that as such assignee, it will make all payments, and do and perform all the covenants, agreements and conditions, on the part of the said party of the second part, to be by it made, done and performed as if the same were herein expressly repeated, the said party of the third part hereby adopting and assuming the obligations of the same; and it is hereby mutually agreed by and between all the parties hereto, that whenever, for any cause or reason, the said party of the third part shall cease to be the lessee of the road and property of the party of the second part, as above provided, or shall have by any means parted with its interest in the said lease to it of said road and property; then, also, the said lease hereby made, and the estate hereby created, together with all the provisions of this indenture, shall, at the option of the party of the first part, wholly cease and become void, and the provisions for enforcing the rights of the party of the first part, herein before provided in the event of forfeiture of this lease, shall thereupon in said case be equally applicable.

Covenant for Quiet Possession.

And the party of the first part hereby covenants and agrees to and with the parties of the second and third parts, they performing everything on their part herein contained, that they, the said parties of the second and third parts, according to their respective rights as herein specified, the said demised premises during the time aforesaid shall peaceably and quietly have and possess.

IN TESTIMONY WHEREOF, the said parties hereto have, by their respective Presidents and by order of their respective Boards of Directors, caused these presents, in triplicate, to be signed with their corporate names and sealed with their corporate seals, subject, as to the execution of the same on the part of the said parties of the first and second parts, to the approval of the stockholders of said companies, according to the laws of the State of Ohio.

Southern Canadian Railway.

Action of the Council of Kent County—Some Facts Concerning the Proposed Route—Diminution of Distances.

To the county of Kent, Canada West, lying immediately east of the county of Essex, which faces Detroit, the proposed Southern Canadian Railway, to run from Detroit to Buffalo, not far from the Shore of Lake Erie, is a matter of deep interest, and the sentiment of the citizens has already found decided expression at the recent meeting of the County Council. The proposition was submitted, that stock to the amount of \$50,000 be taken by the county, and that a by-law be adopted pledging the tax-payers to raise that sum. The members of the Council, representing the southern townships of course, strongly favored the passage of such a measure, and gathered support for their views by referring to the recent test vote taken in the large town of Harwich, where the population is

almost unanimous in regard to the subject. The attention of the meeting was further called to the fact that the county of Elgin had already passed the requisite by-law, pledging \$50,000.

The present condition of affairs on the road is that officers have been elected, subscription books opened, a large amount of stock subscribed, heavy pledges made by the counties through which the road is to pass, and the prospect is excellent for the speedy construction of the line.

Its length from Buffalo to Detroit will be 220 miles, 35 miles less than the route by any line operated at present. The Western Canadian terminus will probably be Windsor, and connection with Chicago be made with the Michigan Central and Michigan Southern roads. If the line from Ypsilanti to Hillsdale, thence almost due west to Chicago, be built, the distance between Buffalo and the great northwestern emporium will be still further diminished, some 50 miles or more being taken off, giving them a double advantage in the great through trade which Detroit can not help profiting by immensely. By the proposed line from Hillsdale south through Indiana, and thence to St. Louis, or by the suggested air line to Adrian, and thence in the same direction, communication with that depot of the far west will be rendered far quicker and more advantageous.

The natural advantages of the line are obvious and unquestionable and have been heretofore dwelt upon generally, but deserve some especial mention. The maximum grade will be but 35 feet to the mile, and that required for only four miles, the maximum grade for the remainder of the route being but 26 feet. The maximum depth of cutting will be less than 30 feet. Only three bridges of any considerable size will be required, the largest over Kettle Creek, in Elgin County, 1,200 feet in length, and the other two of about one half that length each, over Otter Creek and Grand River especially. So great are the natural advantages of the line by reason of the want of streams and high gradings and deep cuttings; from the fact that gravel for ballasting and oak for ties are very convenient along the whole route, that the road can be built for \$6,000,000, and built well, so that with the proposed double track which will undoubtedly be put down ultimately, passengers and freight can be hurried east or west at a speed far greater than is now generally maintained on any lines of railway in America. A circumstance that will materially aid in promoting speed and at the same time safety, is the fact that no curve will be required of less than one mile radius, which is practically no curve at all.—*Detroit Adv & Tribune*

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It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the long-end package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

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1 64	\$37	11 64	\$38
2 96	40	12 96	42
3 144	46	13 144	48
4 192	54	14 192	57
5 256	62	15 252	65
6 320	70	16 320	75
7 400	80	17 400	85
8 500	90	18 480	95
9 600	100	19 600	110
10 720	115	20 700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

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When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

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Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

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" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
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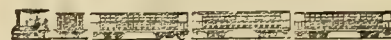
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Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front to East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines. State-room Sleeping Cars on Night Trains.

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7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAX TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 8:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:02 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAX TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

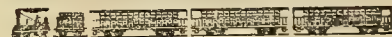
2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passing Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

Sleeping Cars by this train for St. Louis and Chicago.

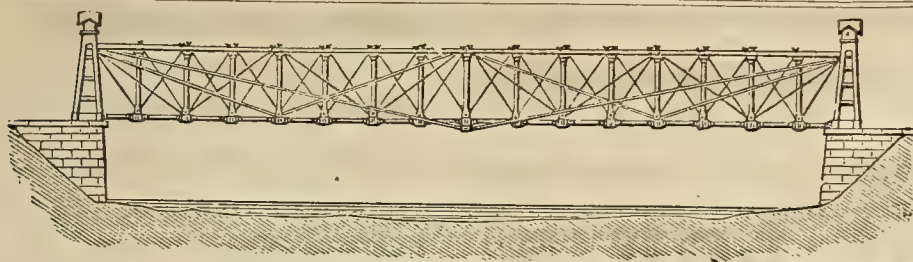
Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House Offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent

F. B. LORD Gen'l Ticket Agent.



(Plan of Bridge.)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

For plans and particulars, apply to

C. J. Schultz, Pittsburgh, Pa.

Letter Box, 1392.

M. W. BALDWIN.

MATTHEW BAIRD.

M. W. BALDWIN & CO.

ENGINEERS,

Broad and Hamilton St. Philadelphia, Pa.

Would call the attention of Railroad Managers and those interested in Railroad Property, to their system of

LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pairs of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and railroad work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention paid to the strength of the machine in the plan and construction of all the details. Our long experience and opportunities of obtaining information enable us to offer these engines with the assurance that in efficiency, economy and durability, they will compare favorably with those of any other kind in use. We also furnish tender wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings; every description of Cooper, Sheet Iron and Boiler Work; and every article appertaining to the repair or renewal of locomotive Engines.

KNOX & SHAIN,
ENGINEERING & TELEGRAPHIC
INSTRUMENT MAKERS

Philadelphia, Pa.

W. M. F. HEWSON,
STOCK BROKER,

21 WEST THIRD STREET, CINCINNATI.

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AMERICAN BANK NOTE COMPANY.

Bank Note Engravers & Printers.

Also engraved in a style corresponding in excellence with that of Bank Notes,

Railroad, State and County Bonds, Bills of Exchange, Checks, Drafts, Certificates of Stock and Deposits, Promissory Notes, Bills and Letter Heads, Visiting and Professional Cards, Notarial, County and Hand Seals, Etc., Etc.

Constantly on hand, Bank Note Paper, made to order, of superior quality.

The above office is under the supervision of
GEORGE T. JONES
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The Old And Reliable Route.



Through to Pittsburg without Change.

THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD, in connection with the Cincinnati, Hamilton & Dayton and Little Miami Railroads, still continues to transport produce and merchandise between Cincinnati and Pittsburg, Philadelphia, Baltimore, New York or Boston, and all Eastern points, with the greatest promptitude and dispatch.

For Rates, Bill of Lading or any information desired shippers will please apply to

H. W. BROWN & CO.,
No. 27 W. 3d St., Cincinnati.

W. P. SHINN, General Freight Agent
Pittsburg, Pa.

CUMBERLAND COUNTY

OIL LANDS,

NEAR

The Great Crocus Well,

[WITH

Productive Wells all

around them.

FOR SALE BY

T. WRIGHTSON

167 Walnut Street,

CINCINNATI.

MANUFACTURERS, IMPORTERS & DEALERS

—IN—

Railroad, Car and Machine Shop

SUPPLIES,

—AN—

MACHINERY OF EVERY DESCRIPTION

68 Broadway, New York,

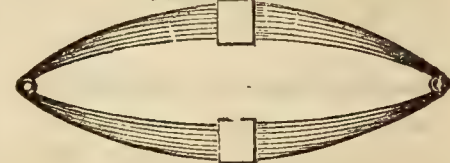
121 West Front Street, Cincinnati.
350 Main Street, Memphis, Tenn.

PERKINS, LIVINGSTON & POST.

RAILWAY SPRINGS. FREIGHT



PASSENGER



LOCOMOTIVE ENGINE



THE SUBSCRIBER OFFERS TO RAILROAD ENGINEERS, PERINTENDENTS, LOCOMOTIVE AND CAR BUILDERS, a Superior Quality of

ELLIPTIC AND SEMI-ELLIPTIC SPRINGS.

Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

PHILIP S. JUSTICE,

No. 14, N. 5th St. Phil. No. 42 Cliff St. N. Y.
Shops—Seventeenth and Coates St. PHIL.

BUSH & LOBDELL,

Chilled Railroad Car Wheel, Ty

—AND—

Railroad Machine Works,

WILMINGTON, DELAWARE,

MANUFACTURE

Chilled Wheels and Tyres

FOR

Railroad Cars

and

Locomotive Engines.

ORDERS executed promptly to tent for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner the shortest notice, and on the most reasonable terms.

PASSENGERS

Purchasing Tickets via

Baltimore & Ohio R.R.

-TO-

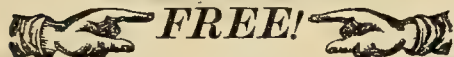
BALTIMORE,

PHILADELPHIA,

NEW YORK, and

BOSTON,

HAVE THE PRIVILEGE OF GOING TO

WASHINGTON

Fare to Washington City same as to Baltimore.

J. L. WILSON, Master of Transportation.
L. M. COLE, General Ticket Agent.
JNO. W. BROWN, General Passenger Agent.

} Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 20 P. M.
Toledo & Detroit.....	7 00 A. M.	9 20 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....	6 45 A. M.	6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; or at the new House Office, corner Vine and Baker streets, and at the respective depots, East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.****Cincinnati to St. Louis Without Change of Cars.****Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph, Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Even. Exp.	Seymour Acc.
Leave CINCINNATI, 7 40 a.m.	10 10 p.m.	4 00 p.m.	
Arrive SEYMOUR, 12 00 m.	2 40 a.m.	8 10 "	
Leave " 12 30 p.m.	2 10 "		
Arrive VINCENNES, 5 15 "	6 35 "		
Leave " 5 20 "	6 40 "		
Arrive ODIN, 9 35 "	10 30 "		
Leave " 9 45 "	10 40 "	6 30 a.m.	
Leave SANDOVAL, 9 55 "	10 50 "	6 40 "	
Arrive ST. LOUIS, 1 00 a.m.	1 30 p.m.	9 40 "	
Trains Arr. at Cincinnati, 6 10 a.m.	11 30 p.m.	12 00 m.	

For tickets, or information apply at Offices, 132 Vin Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

C. E. FOLLET Gen. Passenger Agent
J. W. CONLOGUE, General Superintendent.

Best Route to St. Louis and Chicago

INDIANAPOLIS, CINCINNATI —AND— LAFAYETTE RAILROAD

Great Through Passenger Route from CINCINNATI to

ST. LOUIS, CAIRO, CHICAGO,

Memphis, New Orleans, Springfield, Quincy
Keokuk, St. Joseph, Des Moines, Omaha
And all Rail and River Towns and Cities in the West,
North west and South-west.

5 THROUGH TRAINS DAILY,

(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express...	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	6.30 am	9.30 am
Cairo and St. Louis Express.....	3.00 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	3.00 pm	4.08 pm
Chicago Lightning Express.....	6.50 pm	11.30 am
St. Louis Lightning Express, Sunday instead of Saturday night.....	11.00 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.

	Leave.	Arrive.
Lawrenceburg Accommodation.....	10.10 am	8.35 am
Harrison.....	5.30 pm	9.15 am
Lawrenceburg.....	4.45 pm	2.00 pm

Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

J. F. RICHARDSON, Superintendent.
A. E. CLARK, General Ticket Agent.

MOSELEY'S WROUGHT IRON ARCH BRIDGES,

AND

CORRUGATED IRON ROOFS

ARCHED AND FLAT.



CORRUGATED SHEETS, OF ALL SIZES. Constantly on hand, painted, and ready for shipment, with instructions for applying them.

MOSELEY & CO.
Boston, Mass.

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Successor to

"McDANIEL & HORNER,*Locomotive and Railroad***CAR SPRING MANUFACTURER,**

Wilmington, Delaware

FREEDOM IRON COMPANY,

MANUFACTURERS OF

LOCOMOTIVE TYRE,

Engines and Car Axles, Pump and Piston Rods,

Bar of all Sizes,

And all Forgings for Railroad Machinery.

Lewistown, Mifflin Co., Penn

JOHN A. WRIGHT, Sup't.

This Iron is all made from best Juniata cold-blast charcoal Pig Iron, refined with Charcoal in the old-fashioned Forge Fire, hammered into a Bloom from which Iron is hammered. The whole operation from ore to finished Iron is conducted at our own Works
June 9

THE SCHENECTADY LOCOMOTIVE WORKS,

SCHENECTADY, N. Y.,

Continue to receive orders and to furnish with promptness the best and latest improved

COAL OR WOOD BURNING LOCOMOTIVE ENGINES

AND OTHER

Railroad Machinery, Tires, etc.

—AND ALSO TO—

Rebuild and Repair Locomotives.

The above works being located on the New York Central Railroad, near the center of the State, possess superior facilities for forwarding their work to any part of the country without delay.

J. W. ELLIS, President.
WALTER McQUEEN, Sup't.

PASCAL IRON WORKS.

ESTABLISHED 1821.

MORRIS TASKER & CO

MANUFACTURERS OF

Lap-Welded American Charcoal Iron Boiler Flues—from 1½ to 10 inches outside diameter, cut to definite lengths.

Wrought Iron Welded Tubes—from ½ inch to 8 inches inside diameter, with screw and socket connections, for Steam, Gas Water, or other purposes, and fittings of every kind to suit the same.

Wrought Iron Galvanized Tubes—strong and durable, designed especially for Water purposes.

Cast Iron Gas or Water Pipe—14 to 24 inches in diameter, and branches for same, &c., &c.

Gas Works Castings, etc., etc.

PHILADELPHIA.

STEPHEN MORRIS, CHAS. WHEELER
THOS. T. TASKER, JR., S. P. M. TASKER
HY. G. MORRIS.

Philadelphia, Wilmington & Baltimore**RAILROAD!****FOUR PASSENGER TRAINS DAILY**

TRAINS LEAVE PHILADELPHIA for the SOUTH DAILY

4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.

On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)

SUNDAY TRAINS—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

The Railroad Record.

E. D. MANSFIELD,
T. WRIGHTSON. } Editors

CINCINNATI:

THURSDAY, FEBRUARY 18, 1863.

THE RAILROAD RECORD,
PUBLISHED EVERY THURSDAY MORNING,
BY WRIGHTSON & CO.
OFFICE—No. 167 Walnut Street.
SUBSCRIPTIONS—\$3 Per Annum, in Advance.

ADVERTISEMENTS.

A square is the space occupied by ten lines of Nonpareil.

One square, single insertion.....	\$ 1 00
" " per month.....	3 00
" " six months.....	12 00
" " per annum.....	20 00
Column, single insertion.....	5 00
" " per month.....	10 00
" " six months.....	40 00
" " per annum.....	80 00
Page, single insertion.....	75 00
" " per month.....	25 00
" " six months.....	110 00
" " per annum.....	200 00

Cards not exceeding four lines, \$5.00 per annum.

WRIGHTSON & CO.,

Proprietors.

Arrival and Departure of Trains.

ATLANTIC AND GREAT WESTERN RAILWAY.

	DEPART.	ARRIVE.
Morning Express	7:00 P. M.	6:10 A. M.
Night Express.....	6:00 A. M.	6:00 P. M.

LITTLE MIAMI.

Lightning Express.....	7:00 A. M.	4:35 P. M.
Express Mail.....	8:30 A. M.	
Columbus Accommodation.....	3:50 P. M.	10:30 A. M.
Morrow Accommodation.....	5:20 P. M.	8:00 A. M.
Lightning Express.....	8:00 P. M.	10:35 P. M.
Night Express.....		6:15 A. M.

CLEVELAND, COLUMBUS & CINCINNATI.

Lightning Express.....	7:40 A. M.	7:25 P. M.
Express Mail.....	9:30 A. M.	5:25 A. M.
New York Express.....	8:00 P. M.	8:35 A. M.

MARIETTA AND CINCINNATI.

Depot on Pearl street, bet. Plum and Central avenue.		
Baltimore and Washington City		
Express and Hillsboro Mail.....	7:30 A. M.	5:00 P. M.
Baltimore and Washington City		
Night Express.....	12:35 A. M.	5:50 A. M.
Marietta and Parkersburg Mail.....	7:30 A. M.	5:00 P. M.
Jackson and Portsmouth Mail.....	7:30 A. M.	5:00 P. M.
Hillsboro and Chillicothe Accommodation.....	3:55 P. M.	10:00 A. M.
Loveland Accommodation.....	5:40 P. M.	7:45 A. M.

CINCINNATI, HAMILTON AND DAYTON.

Toledo, Detroit and Canada.....	6:00 A. M.	10:10 P. M.
Toledo, Detroit and Canada.....	6:30 P. M.	6:10 A. M.
Richmond and Chicago Mail.....	7:15 A. M.	11:55 P. M.
Richmond and Chicago Exp.....	5:10 P. M.	1:50 P. M.
Indianapolis & Cambridge City.....	6:00 A. M.	10:10 P. M.
Indianapolis & Cambridge City.....	5:10 P. M.	10:30 P. M.
Dayton, Lima and Chicago.....	3:00 P. M.	5:20 P. M.
Bellefontaine and Sandusky.....	6:00 A. M.	10:10 P. M.
Bellefontaine and Sandusky.....	6:30 P. M.	10:30 A. M.
Hamilton Accommodation.....	6:20 P. M.	7:55 A. M.
Dayton Accommodation.....	6:30 P. M.	10:30 P. M.
Dayton Express.....	5:00 P. M.	6:10 A. M.

CINCINNATI, SANDUSKY & CLEVELAND.

Day Express.....	7:20 A. M.	7:05 P. M.
Night Express.....	5:45 P. M.	10:25 A. M.

CINCINNATI AND INDIANAPOLIS JUNCTION.

Indianapolis, Rushville and Connorsville Mail.....	7:00 A. M.	10:45 A. M.
St. Louis Express.....	2:30 P. M.	5:10 P. M.
New Castle and Cambridge, City.....	7:00 A. M.	10:45 P. M.
New Castle and Cambridge City, Express.....	5:00 P. M.	10:45 P. M.

INDIANAPOLIS, CINCINNATI AND LAFAYETTE.		
Chicago and St. Louis Express.....	7:00 A. M.	8:30 A. M.
Springfield & St. Joe Express.....	1:45 P. M.	4:40 P. M.
St. Louis & Chicago Express.....	7:00 P. M.	12:45 A. M.
Lawrenceburg & Harrison Accommodation.....	5:10 P. M.	8:10 A. M.
Harrison Accommodation.....	10:10 A. M.	2:20 P. M.

OHIO AND MISSISSIPPI.

St. Louis, Cairo & Louisville.....	7:00 A. M.	11:45 P. M.
Louisville, St. Louis & Cairo Ex.....	5:45 P. M.	6:10 A. M.
Louisville Special Train.....	3:45 P. M.	1:50 A. M.

CINCINNATI AND ZANESVILLE.

Mail.....	7:00 A. M.	4:10 P. M.
Caboose Accommodation.....	3:50 P. M.	8:00 A. M.

KENTUCKY CENTRAL.

Express.....	6:00 A. M.	6:00 P. M.
Lexington Express.....	2:00 P. M.	10:50 A. M.
Falmouth Accommodation.....	6:30 P. M.	7:10 A. M.

PAN HANDLE ROUTE.

Express Mail.....	7:00 A. M.	6:15 A. M.
Fast Express.....	8:30 A. M.	4:35 P. M.
Pittsburgh & New York Express.....	8:00 P. M.	10:35 A. M.

The Tariff and Mr. Welles—Iron.

Mr. Welles, as Commissioner of the Internal Revenue, has made a very interesting report, which has been generally commended. As a statistical document it is very valuable, but as a statesmanlike document it is worthless. Mr. Welles seems to be very good in getting facts, but does not know how to use them. This is particularly the case with his observations on the tariff, and most strikingly so with the illustrations he gives of his own positions. We know that the tariff is not perfect, and very probably there are serious defects in it. But that is no reason why the best parts of the tariff should be spoiled with reasons which have no bearing on the case, and illustrated by facts which disprove clearly the position of the Commissioner. For example: Mr. Welles takes five pages of his report to show that the duty on salt ought to be repealed, and exhibits entire ignorance of the subject. It is curious to see how completely he exhibits his ignorance. He assumes that the salt-works at Syracuse and Saginaw are a monopoly, seemingly entirely ignorant that three millions of bushels of salt are made in the Ohio Valley. He then introduces testimony that the capital of the salt company at Syracuse is only \$160,000, (being, however, only five per cent. on the appraised value of the works) and on that made an enormous profit. Certainly, but he leaves out of view and ignores, in the coolest manner possible, that the actual capital of all the private works there represented by this \$160,000 is \$4,000,000. But the most sublime part of this report (that in which Mr. Welles exhibits himself as a man of genius) is on page 45, in which he says the duty on salt affects the identical interests involved in the manufacture of beef, pork, butter, &c., affecting the price of food. Well, this is a good charge against the duty on salt. We don't want the price of food raised. But, most fortunately for the cause of truth, he gives some statistics from the facts, which throw his idea of raising the price of food into ridicule. He gives the price and duty on two cargoes of imported salt, which shows that the duty was 12½ cents per bushel. Now let us apply this to pork and butter. A bushel of salt weighs 50 pounds, and a barrel of pork consumes 25 pounds—half a bushel. The duty on that is 6½ cents, and the price of a barrel of mess pork is \$27. Thus the duty on salt in a barrel of mess pork is just equal to the price of a glass of lager beer. There is not a pork merchant in the United States who will not throw in a glass of lager on a barrel, if he can sell his pork by it. There is probably ¼ an ounce of salt in a pound of butter, and, as the duty on 50 pounds of salt is 12½ cents, so is there a 32nd part of a 50th part of a bushel in a pound of butter. There is a 1500 part of 12½ cents

duty on a pound of salt. There is 1-12,000th part of a dollar, or a 120th part of a cent duty on a pound of butter. That is, there is less than one mill tax on a pound of butter. There is not a butter maker in the United States who would not throw off ten times that to secure a market. To such a ridiculously small point is brought Mr. Welles' wail on the price of food by the duty on salt.

But, we purpose to examine another of these points, in which Mr. Welles has shown that he understands figures but not philosophy. Having discussed the salt question with such signal knowledge of the subject, he next proceeds to expound pig iron. His propositions on this subject are two, 1st. That the duty on pig iron is far too high; 2d. That the duty on pig iron has raised the price of bar and boiler iron, so as to be unprofitable to the manufacturer. Now, we propose to examine this by the light of the facts. Mr. Welles undertakes to furnish the facts, and we shall not dispute them. On the contrary, his report is an excellent armory of weapons for tariff men. 1. About the tax or duty, he says, the duty is \$12.00 per ton, and the cost of making a ton is \$26.00. The duty then is only about 46 per cent. on the cost of making; and if the foreign article can be brought in to competition, makes the cost about the same as the domestic. Now we submit, in view of the cheapness of foreign labor, whether 46 per cent. is too high? The price of puddling iron in Europe and America, is about as follows:

United States.....	\$16.00
England.....	8.50
Russia.....	2.00

Now observe, 1. That more than half the cost of a ton of pig iron is labor; and—2. That the price of the labor in the Welsh and Scotch iron is only half what it is in the United States; and we may here observe, that the price of common labor is only about half in England. The price of American labor is 50 per cent. higher than English labor; but, the tariff on pig iron is only raised 46 per cent.

2. Next, Mr. Welles says, the price of pig iron is so high, that it is unprofitable to the makers of bar and boiler iron. Well, what does that prove? Simply and only, that the duty on bar iron ought to be raised. If the duty on pig iron is no higher (and in fact it is not so high,) than the difference between English and American labor, then it is not too high, and the duty on bar iron ought to be raised to correspond with it.

Mr. Welles' Report is very extraordinary on one account. After giving figures, showing that the price of labor in England is not more than half what it is in the United States, he proceeds to argue in another place, that the difference in labor is very little, and not to be compared with our tariff. The average of our tariff on all imported goods is 47 per cent.; and the American labor is full that much higher; besides the extreme

cheapness of British capital. The simple truth is, that our tariff just about meets the difference of labor, while the cheapness of British capital is entirely in favor of the British manufacturer. We have the freight, the difference between gold and paper in the duty; and the internal transportation in our favor, and they enable our manufacturers to get along tolerably well. Mr. Welles' Report is, in its conclusions, simply a humbug, and ought so to be regarded.

Railroad Subsidies—Letter from Senator Howard—Detroit.

The Hon. J. M. HOWARD, Senator from Michigan, Chairman of the Senate Committee on "Pacific Railroads," having been personally attacked by some of the local papers of his State, has written the following letter to the *Detroit Advertiser and Tribune*:

The *Free Press* of Sunday last contains a very scurrilous article on me, and copies part of an article from the *Detroit Post*, which I have not seen. Perhaps the whole article in the *Post* may not be objectionable. I have no "axes to grind," and no man has hired or can hire me to "grind axes for others." As to railroad subsidies, all who have heard me converse on the subject for the last six months know that I have been among the first—perhaps the very first—to discourage any further grants of cash subsidies to railroads, such as Congress granted to the Union Pacific and its branches. I have long since seen that such a policy would weigh too heavily on the public treasury. The application of the Central Branch Pacific Railroad, in Kansas, rested upon the principle that it is the duty of Congress to keep its faith, and I therefore supported it for the same reason as I would compel a private party to fulfill his contract.

The recent "Omnibus Railroad Bill" proposing Government aid to the Northern Pacific, to the line on the 35th degree of latitude from Little Rock, Arkansas, to the Colorado river, and thence to San Francisco; to the Kansas Eastern Division, from near the western boundary of Kansas to a junction with the line on the 35th degree, and the Oregon Branch Pacific Railroad, from Humboldt river to Portland, Oregon, was reported to the Senate by me as Chairman of the Committee on the Pacific Railroad of the Senate, and in obedience to their instructions. I was but discharging a common duty, too well understood by legislators to need apology or explanation. I was charged with reducing to form the recommendations of the committee and did so to the best of my ability, as became my position; though, with four other members, I voted against the bill in committee, announcing that I would not support it in the Senate. The bill grants no subsidy, but merely provides that the Government shall guarantee the interest in greenbacks on the six per cent. bonds of the companies, reserving to itself as security all the proceeds of the alternate sections of land set apart for their benefit, 10 per cent. of their gross receipts, and all sums due them for transportation of the mails and of Government stores of every description. It also provides that on failure to pay over the 10 per cent. the company so failing shall be deemed bankrupt, and that its affairs shall be wound up by the At-

torney General of the United States as provided in the Bankrupt Act. It provides, moreover, for the sale of the railroad lands at auction, so as to realize the highest price for them, and subjects the land remaining unsold at auction to sale by private entry at \$2 50 an acre; and allows pre-emption to homestead settlers to acquire them at that price after they have been offered at public sale. Thus the chief evils now complained of, connected with railroad lands are almost wholly removed. A policy entirely new is suggested, which, the moment a company has completed a section of road twenty miles in length, forces the land lying along it to be offered at public sale, giving all (except the company) a chance to bid, and after that to become private purchasers; and protects, fully, the interests of the pre-emptor and homestead settler. It should be added that it subjects all these lands to State and territorial taxation the moment patents are due, thus making them bear their share of the public burdens. It seems difficult to devise more stringent and effectual guards and securities to protect the United States from loss, and the people from the evils of "land monopolies;" and so exacting are these provisions of the bill in respect to indemnity to the Government that, as I am informed by very intelligent men, the companies will not feel themselves safe in accepting the act.

I should add that the title of the railroad lands is not to pass to the companies at all, but to remain in the United States until thus sold, and that the sales are to be conducted in the usual way, by the Secretary of the Interior.

But even this bill I can not support. My reasons are, mainly, that I deem it unwise for Government to be mixed up so extensively with railroad corporations and railroad business. It is not fitted for such purposes, as the experience of the people of our own State has abundantly demonstrated. Nor am I satisfied that after all the Government would not be, in the end, a heavy loser in becoming the guarantor of the interest on the bonds of such a vast stretch of railroads, as to the nature and value of most of which we are not sufficiently informed to justify us in taking the risk.

Thus it will be seen how little ground the *Free Press* has for its assertion that I am "well known to be among the most devoted members of the subsidy ring to be found in the Senate."

Allow me to add that I never have had and have not now the slightest private interest in any railroad stock, railroad bonds or railroad securities of whatever kind or description, and though I am of opinion that a sound public policy fully justifies the Government in extending to railroad companies aid in the shape of land grants in the prosecution of their efforts to develop the resources of the unsettled regions in the West, I am opposed to the former policy of granting them the title, and thus enabling and even tempting them to retard settlement by refusing to sell their lands at a reasonable price, within the means of the pioneer. I think this policy has retarded settlement in our own State, and that it is a just ground of complaint. Very truly and respectfully, J. M. HOWARD.

The practice of personal attack on gentlemen for their course in legislative bodies is indulged in with entirely too much freedom by the political press of the country, and is calculated to materially lower the standard

of our legislative bodies, as it will force men of fine feelings and real merit and talent to avoid all connection with politics. We deem it an inherent right to attack measures; but personal character and motives should be sacred from defamation and falsification in the one-sided arena of the "press."

There are points in the "omnibus bill," which, with Senator HOWARD, we deem of sufficient importance to desire at least its serious modification. *First*, Ten years is plenty long enough to guarantee the interest on the bonds necessary to construct the roads. *Second*, There are some projects in the bill that are at present, premature; hence, each project should be considered on its own merits. *Third*, The objection urged by Senator HOWARD, that "I deem it unwise for the Government to be mixed up so extensively with railroad corporations," may be, and probably is, under this bill, well taken.

We grant that the Government can not aid in the construction of these highways, and should not, without good security against too much loss; still, it is folly to hamper any project with so many restrictions that they insure defeat. It would be equivalent to killing the goose that was to lay the golden eggs; or, as Senator HOWARD expresses it, "so exacting are these provisions of the bill in respect to the indemnity to the Government that, as I am informed by very intelligent men, the companies will not feel themselves safe in accepting the act." Surely where the Government has the matter of security in its own hands, there can be no difficulty in devising some simple method of taking care of it, and yet accomplishing the result,—the development of our internal resources and foreign commerce, without the Government becoming "mixed up so extensively with railroad corporations." The official patronage of the Government is already too great, and no worse calamity could well befall us than the passage of any measures that would swell the power and influence of reigning political parties, and increase the temptations to corruption, and embitter the contests for the "spoils."

We deem it unnecessary to adduce proof that the construction of railroads will develop the resources of the country; or to sustain the theory as advanced by Senator HOWARD, "that a sound public policy fully justifies the Government in extending to railroad companies aid in the shape of land grants." For, in making land grants through the Public Domain, not intersected with water courses, the Government does not lose anything, as the alternate sections to those "granted," are immediately held by the Government to be worth double the standard price of marketable lands, although they become marketable only by the construction of the roads.

The same principle is likewise true in

reference to a CASH aid to a certain extent—and to that extent Government can aid the roads in cash, or cash guarantee of interest, without loss, or danger of loss. We have seen suggestions, that the Government, by guaranteeing the interest on the bonds, as proposed by the omnibus bill, will really give to the roads the sum of \$270,000,000. Such a statement, is of course, a willful perversion; on no other hypothesis would any one but a lunatic make it. We presume it is not contemplated to stop either the military or mail service of the Government. If not, why then Government in the course of thirty years will expend for these services over the same routes not less than the above sum, if the roads are not built; and in all probability, basing the calculation on the past five years, a great deal more. To whom will the sum thus expended in doing the service, by mule power, be given! The service has to be done, and in thirty years twice two hundred and seventy millions paid for it; who will doubt it. But, if the service is performed according to the enlightened manner of the nineteenth century, by steam, it will cost less than one-half what it would by the use of mules and oats and the nation will have advanced in population and wealth more than one hundred per cent. faster than if the roads are not made. The increase of population and wealth increases the basis of taxation. The advantages of increase of the basis of taxation will not accrue to the roads, but to the Government. Hence, we should like to inquire, if this is not the true theory of "how to pay the national debt."

Northern Pacific Railroad.

We judge, by the following joint resolution of Congress, that this company has decided to go ahead and construct their road, independent of any further legislation from Congress. We hope they will succeed in the effort, so as to save their valuable charter and land grant. We want the road built, and so does the country. We doubt not, at some future time, if more aid is really needed to render the enterprise a success, upon a good honest showing of the company's effort to develop the resources of the country with a little expenditure of their own cash, that they will not be allowed to suffer or the enterprise to fail:

Mr. HUNTER, of Ind., (R), introduced a joint resolution giving the consent of Congress to the Northern Railroad Company to issue bonds and to secure the same by mortgage on its railroad and telegraph line for the purpose of raising funds with which to construct a line between Lake Superior and Puget Sound. Also, on it a branch to a point at or near Portland, Oregon. The Puget Sound to apply to all matter connected with the Straits of Juan de Fuca, within the territory of the United States. The previous question was seconded, and under its operation the joint resolution was read three times and passed, the call for the yeas and nays being refused.

NORTHERN PACIFIC R. R.—The following shows the condition as to time of construction, etc., on which the present land grants to the Northern Pacific Railroad is based. The land grant is exceedingly valuable, when the road is made, but without the road it might as well be in the moon. It will be observed that the road must be finished on July 4, 1877:

"No. 47.—Joint resolution extending the time for the completion of the Northern Pacific Railroad.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That section eight of an Act entitled "An Act granting lands to aid in the construction of a railroad and telegraph line from Lake Superior to Puget Sound, on the Pacific coast," is hereby so amended as to read as follows: That each and every grant, right, and privilege herein, are so made and given to and accepted by said Northern Pacific Railroad Company upon and subject to the following conditions, namely: that the said company shall commence the work on said road within two years from and after the second day of July, 1868, and shall complete not less than one hundred miles per year after the second year thereafter, and shall construct, equip, furnish and complete the whole road by the fourth day of July, anno Domini eighteen hundred and seventy seven.

"Approved July 1, 1868."

Pacific Commerce.

Many persons affect to regard the through commerce from the Pacific as a "mirth"—a vapory shadow of an excitable imagination. We confess to having pictured it with all the glowing colors and brilliant skies of the Occident and Orient combined years ago; and are perhaps more responsible for the "shadow" than any one else. But let us look at it for a moment with the glasses of the great railroad giants of the day. A correspondent of the *Detroit Tribune and Advertiser*, writing from New York, says:

"THE SPOILS OF THE PACIFIC RAILROAD.

"Already this city is preparing itself for the lion's share of the business of the Union Pacific Railroad. The far-seeing management of the Erie Railway are industriously engaged in consummating plans looking to the same end. When James Fisk, jr., of Erie notoriety, bought the Opera-house on Twenty-third street, think you he was ambitious to distinguish himself as a manager of comedy, burlesque or opera bouffe? That purchase, together with others we wot of, was made with reference to the future interests of the aforesaid company. The time is not far distant when both the Hudson and East rivers will be tunneled, when also an underground railroad will be made under the whole length of Twenty-third street to the East River, and under that river to Brooklyn, thereby securing by its convenience of access to the mart of both cities a large share of the freight and business of both continents. To this end, a bill is already before the New York Legislature for building out and docking East river from the Battery to Hell Gate, whose object is a part of the great scheme of this stupendous enterprise."

In addition to the above, it may be said that the New York Central propose to bridge the Niagara river at Buffalo, shorten the road to Detroit some 35 miles, tunnel the Detroit river, and there form direct connection with the Northern Pacific Railroad *via* Saginaw and the Straits of Mackinaw, and also to make a shorter and closer connection with the Union Pacific *via* Chicago, while the operations of Erie and Pennsylvania railroads during the past few months to attain similar connections, are too well known and fresh in the memories of all to need recapitulation, including the efforts to reach St. Louis for the share in the trade of the Kansas Pacific route. All this shows that the Thompsons, the Garrets, the Goulds and Vanderbilts are wide awake to the importance and value of the vast traffic that must flow over these great lines of commerce. Nor is it the railroads only that is interested in this conflict. The great cities which they represent are alike exerting themselves, with the vigor, energy and desperation of gladiators contending for this prize.

New State of Superior.

The following is the text of the resolution passed by the Wisconsin Senate in relation to the proposed new State of Superior:

"Resolved by the Legislature of the State of Wisconsin, That the assent of the State of Wisconsin is hereby given to the formation, by the Congress of the United States, of a new State from that portion of Wisconsin lying north of the line commencing at the mouth of the Menominee river, thence running up the center of said river until it strikes the dividing line of townships numbered 30 and 31 (per Lapham's map of Wisconsin) thence west on said line to the center of the Mississippi river, and that portion of the State of Michigan bordering on the same, and on Lakes Superior and Michigan and Green Bay."

It will be seen that it is contemplated to create a new State out of a portion of Northern Wisconsin and what is known as the Upper Peninsula of Michigan. This is no more than right. The people living in this portion of both States are mostly miners, with different wants and whose interests are distinct from that of the balance of the people of both Wisconsin and Michigan, and hence require different legislation to develop their resources to that which will best promote the interests of more strictly agricultural districts. With the construction of the Northern Pacific Railroad, the State of Superior would soon become one of the leading mining and manufacturing States of the Union. It has all the elements of mineral wealth except coal, which is, however, abundant in Michigan and further west on the line of the Northern Pacific Railroad. Let us have the new State of Superior and thus promote material development, increase production and broaden the basis of taxation.

Erie Railway.

The State Engineer and Surveyor in his report for the fiscal year ending September 30, 1868, gives the following as the condition of the Erie Railway Company:

STOCKS AND DEBTS.

	Amount.
Amount of stock subscribed....	\$46,302,210 00
Amount paid in, as by last report.....	25,111,210 00
Total amount now paid in of capital stock.....	*46,302,210 00
Funded debt, as by last report,	22,429,920 00
Total amount now of funded debt.....	23,398,800 00
Floating debt, as by last report,	3,524,813 23
The amount now of floating debt.....	4,893,735 81
Total amount now of funded and floating debt.....	28,242,535 81
Average rate, per annum, of interest on funded debt, 7 per cent.....	7 per cent.

* Including \$8,536,910 preferred stock.

COST OF ROAD AND EQUIPMENT.

	By last report.	By present report.
For graduation and masonry.....	\$994,950 89	\$1,501,643 11
Telegraph.....	12,326 52	12,326 52
Superstructure, including iron.....	1,425,741 30	2,179,724 20
Passenger & freight stations, buildings, and fixtures.....	619,522 43	849,536 34
Engine and car houses, machine shops, machinery and fixtures.....	1,503,513 95	1,580,516 21
Land, land damages and fences.....	135,563 36	335,563 36
Locomotives & fixtures, and snow plows.....	2,668,211 96	2,672,611 96
Passenger & baggage cars.....	667,441 96	694,818 17
Freight and other cars.....	2,077,568 06	2,654,706 77
Pavonia Ferry.....	178,200 83	266,210 48
New York and Erie Railroad.....	38,964,728 45	38,964,728 45
Discount on sale of convertible bonds, &c.....		4,774,220 40

Total cost of road and equipment, \$49,247,769 70 \$56,486,605 97

EARNINGS AND CASH RECEIPTS AND PAYMENTS.

Earnings:	
From passengers, trains.....	\$3,531,503 88
From freight.....	10,780,975 66
From other sources	64,392 73
Total.....	\$14,376,872 28

Receipts:
From passengers.....\$2,744,416 40
From freight.....11,425,738 84

From other sources as follows:	
Mails.....	142,324 30
Storage.....	855 83
Telegraph.....	25,948 02
Rents.....	16,541 63
Pavonia Ferry.....	21,047 25

Total.....\$14,376,872 27

Payments other than for construction:

Transportation expenses.....	\$11,143,092 32
Hudson River Ferry.....	124,318 90
Operating telegraph.....	96,428 24
Hire of cars.....	124,501 65
Internal revenue tax.....	112,953 29
Loss on Lake Erie steamers...	78,898 18
Insurance	35,970 62

Total.....	\$11,716,163 20
Interest on mortgage debt.....	1,687,267 65
Rent of railroads.....	703,392 93
Interest.....	247,376 29

Total.....\$14,354,200 07

Surplus Oct. 1, 1867.....\$776,637 98

Less surplus to credit

of income account,

Jan. 1, 1867.....40,336 01

Balance.....\$736,311 97

Less dividend on pre-

ferred stock as of

Jan. 7, 1868.....567,804 85

Surplus deduct.....169,007 12

Total.....\$14,185,192 95

Surplus Oct. 1, 1868.....191,679 32

Total.....\$14,376,872 27

Annual Report of the Philadelphia and Erie Railroad Company.

"The annual meeting of the stockholders of the Philadelphia and Erie Railroad Company was held at the office of the company, No 230 Walnut street, Monday, A. M., February 8.

"The annual report of the President of the company, from which the following figures are taken, was submitted:

Gross Receipts During the Past Year.

From passengers...	\$631,437 59
From freight.....	2,101,613 98
From mail and miscellaneous.....	71,198 79
Total.....	\$2,804,250 36
Receipts in 1867.....	2,333,759 94

Increase in 1868.....\$470,490 42

30 per cent. of the gross earnings

due this company amounts to

Of which there has been paid

on account of interest and

organization.....727,902 71

Leaving a balance in favor of

company.....\$92,521 24

Total amount of tonnage in 1868

" " " 1867

" " " 1867

Increase.....298,837

"The following gentlemen were elected managers of the company to serve for the ensuing year: Messrs. Edward F. Gay, J. Edgar Thomson, Wistar Morris, Henry Dubring, Jacob P. Jones, Josiah Bacon, Samuel T. Bodine, John M. Kennedy, Washington Butcher and Henry D. Moore. The foregoing, together with the following gentlemen, elected managers by Philadelphia City Councils, constitute the full board: Charles F. Norton, Joseph W. Gaskill and J. Alexander Simpson."

It will be perceived that, after payment of interest and expense of organization, there remained, of the thirty per cent. of gross

earnings credited to the company for the year, the sum of \$92,921.24.

This, however, is not a full showing of the matter, since a deficit of \$84,000 accrued interest payable out of income of 1867 was paid out of the income of 1868, whereby the interest and organization account was increased to \$727,902 71, whereas in fact it was, for the year considered by itself, only \$643,902.71, the difference being the \$84,000 interest defaulted on in 1867, and paid in 1868, as before stated.

Adding the \$84,000 paid out of income of 1868 for accrued interest defaulted on in 1867, to the balance in favor of the company out of the income for 1868 after payment of interest and organization for that year, there is shown a surplus of \$176,521.24.

It should be known, moreover, that there were not a few occasions in 1868 when the cars supplied were inadequate to move the freight offered, the same state of things also occurring on the main road of the lessee, and on other great lines, during the flood flow of the commercial tide.

As, however, the lessee has largely increased its equipment, of course an additional quota of cars will be allotted for service on the Philadelphia and Erie road, to accommodate its fast developing traffic.

Like all other practical questions, the income deficit and interest default in 1867 had two sides, the event from one side of view seeming a fiscal misfortune, whilst from the other and brighter side it was the aspect of a fortunate circumstance, because a failure on the part of the lessor to pay the interest coupons on \$2,400,000 seven per cent third mortgage bonds held by the lessee, gave the latter a legal right to exchange said bonds for eight per cent preferred stock, a conversion which was forthwith urged, and which, without delay, was consummated. This conversion accomplished, the lessee, in September, 1867, by the acquisition of common shares, became owner of a majority of Philadelphia and Erie Railroad Company's capital stock.

A glance at the names of the Directors will reveal that the organization of the Pennsylvania Railroad Company and the Philadelphia and Erie Railroad Company in majority part, are in the same hands.

The whole length of the Philadelphia and Erie Railroad, from Sunbury to Erie city, is 287 51 miles. The extension of the Philadelphia and Erie Railroad, down the west side of the Susquehanna, would mortise it into the Pennsylvania Railroad Company's main track seventeen or twenty-two miles west of Harrisburg and a hundred and seventeen or a hundred and twenty-two miles west of Philadelphia, according as the Juniata aqueduct or Bailly's station might be preferred, for the point of junction.

From Sunbury to the Bennett's Branch tributary of the Philadelphia and Erie Railroad at Driftwood, the distance is one hundred and fifteen miles. And when this Bennett's Branch tributary shall have been carried, on easy grades and gentle curvature, across to the Allegheny river, not, however, to seek there a final termination, but only a halt preliminary to a bold advance westward to the valley of Beaver river, and to most important connections near the Ohio State line, then indeed will the Bennett's Branch tributary be anatomized into a magnificent transportation machine; and the Philadelphia and Erie Railroad Company's lines put into Juniata contact with the Pennsylvania Railroad Company's system of works, will play a conspicuous part in the grand campaign waged by the

Atlantic trunk corporations, for the traffic interchanged between the East and the West.

Those who can not see into the future after this fashion, fail to appreciate the continental back country which invites and stimulates the rivalry and competition of the Atlantic trunk routes to the great seaport cities.—*Mining Register.*

New York and Harlem Railroad.

The report of this company for the fiscal year ending September 30, 1868, is as follows:

STOCKS AND DEBTS.

Capital stock, as by charter.....	\$8,000,000
Amount of stock subscribed.....	7,000,000
Amount paid in, as by last report...	6,785,050
Total amt now paid in of capital stock.....	7,000,000
Funded debt, as by last report.....	5,993,625
Total amount now of funded debt...	5,086,325
Floating debt, as by last report.....	None.
The amount now of floating debt...	None.
Total amount now of funded and floating debt.....	5,086,325
Average rate per annum of interest on funded debt*.....	6 2-3 per ct.

* Real estate mortgages not included in the above, \$18,000.

EARNINGS, CASH RECEIPTS AND PAYMENTS.

Earnings:	
From passengers.....	\$1,095,200 83
From freight.....	1,208,575 99
From other sources.....	452,455 71

Total..... \$2,756,232 53

Receipts:

From passengers.....	\$1,095,200 83
From freight.....	1,208,575 99

From other sources, viz:

Mail service.....	13,050 00
Expresses.....	126,637 55
Rents receivable.....	50,164 13
Haulage of cars.....	73,217 75
Miscellaneous.....	1,274 08
New Haven Co., (use of road).....	188,112 20

Total..... \$2,756,232 56

Payments other than for construction:

For transportation expenses.....	\$1,772,687 57
For interest.....	375,466 82
For dividends on stock amt and rate per cent., 8 per cent.	580,423 16
To payments to surplus fund.....	
U. S. tax on earnings.....	27,654 98

Total..... \$2,756,232 53

Hudson River Railroad.

The State Engineer and Surveyor in his report for the fiscal year ending September 30, 1868, gives the following as the condition of the Hudson River Railroad Company:

STOCK AND DEBTS.

Capital stock, as by charter.....	\$4,000,000 00
Amount of stock subscribed.....	3,770,926 59
Am't paid in, as by last report.....	9,981,500 00
Total amount now paid in of capital stock.....	13,932,700 00
Funded debt, as by last report.....	5,394,550 00
Total amt now of funded debt...	6,074,960 00
Floating debt, as by last report.....	1,167 00
The amt now of floating debt...	1,167 00
Total amount now of funded and	

floating debt.....	6,076,127 00
Average rate, per annum, of interest on funded debt.....	6 9-10 per cent.

EARNINGS, AND CASH RECEIPTS AND PAYMENTS.

Earnings:	
From passengers.....	\$2,000,474 81
From freight.....	2,988,523 09
From other sources.....	524,613 90

Total..... \$5,523,611 60

The above to be stated without reference to the amount actually collected.

Receipts:

From passengers.....	\$2,000,474 81
From freight.....	2,039,125 94

From other sources as follows:

Rents.....	51,445 63
Mails.....	46,875 00
Interest.....	48 658 13
Miscellaneous.....	387,635 14

Total..... \$5,574,214 65

Payments other than for construction:

For transportation expenses....	\$3,793,319 11
For roadway, grading, bridging, etc.....	291,306 92
For interest.....	433,692 75
For dividends on stock amount and rate, 8 per cent.....	1,003,880 00
To U. S. tax on passengers and mail.....	51,227 44
To cash on hand.....	1,388 43

Total..... \$5,574,214 65

The Central Pacific Railroad—Serious Complaints of Its Management.

From the San Francisco Herald.

NEVADA, January 20, 1869.

The subject of the Central Pacific Railroad is being ventilated by the San Francisco press to a very moderate extent, but let us see if there are not some other things in connection with the concern that need ventilation. I am going to remark at the start that there is not a newspaper in this State that will publish a letter that contains any thing against the Railroad Company. They have got the "independent press" of this State under their thumb. The means by which they have accomplished this I don't know, but the fact is the subject of almost universal comment on the line of the road. This railroad not only charges twice the freight charged by any other company in the whole land, but it is the *very worst constructed*, and I think the worst managed. I can not speak knowingly of more than two hundred miles of the road, running east from Reno, but I will defy any man to match those two hundred miles in the United States. Grades of every imaginable degree for all kinds of distances, and curves of every kind, are crowded into every mile. The road is literally laid on the top of the ground, and while the Company had the best valley through which to construct a first class road that there is in the whole country west of the Missouri river, they have built the worst that could be constructed and be a railroad at all. Standing just above the depot at this place, four different grades can be distinctly seen. I have it from a gentleman who has been employed in the engineer corps that there are grades of one hundred and sixteen feet to the mile in the Humboldt Valley. These are only for short distances. One end of a train will be

going down a grade of this kind, and the other up another equally steep. Not the least effort has been made to ballast the road over the "self-rising" ground, and I pledge you my word that a good soaking rain will make miles and miles of the road-bed run like wet soap. I listened last evening for two hours to the comments of a gentleman, well known in this county, who is well acquainted with railroad building in the Northern States and Canada, and he did not hesitate to say that the road was the very worst he had ever seen, and that a two days' rain would make at least one-half of the road built in Humboldt county impassable. You may think that I am somehow sore-headed, and am writing about "new things;" but I am only repeating what is said a hundred times a day in this town. I heard one man ask another the other day how it was that the United States Commissioners could accept such a piece of work. * * *

The people have paid for a first-class road, and, owing to the silence of the Pacific coast press, think they have got it; but it is perfectly notorious along the line of the road this side of Reno, that it is built just as cheap as it can be got together. The evils do not stop with the road. The management of the rolling stock is only equalled by the road itself. Not one train in ten arrives at this place on time, though the time-card calls for only fourteen miles per hour for passenger trains and twelve for freight. I have seen six trains stuck here for the want of wood, and it is no unusual thing for the men to resort to sage brush. Now that the Chamber of Commerce of San Francisco has got started—though it is a very late start—don't let them stop short of a thorough investigation of the whole subject. It is useless to expect any thing from the business men or politicians of this State. * * * Let us see if Congress can not be forced by the people, who are being so outrageously swindled, to cause a thorough ripping up of this whole business.

Meeting of the Stockholders of the C. H. & D. R. R.

LEASE OF THE ROAD TO THE A. & G. W. R. R. CO.

The stockholders of the C. H. & D. R. R. met at the Depot yesterday morning at 11 o'clock, to vote upon the question of ratifying the lease of the Cincinnati, Richmond & Chicago Railroad by the C. H. & D. R. R. Co., and also that of the C. H. & D. R. R., and assigning the leases of the Dayton & Michigan and the Cincinnati, Richmond & Chicago Railroads to the Atlantic & Great Western Railroad Company.

The meeting was organized by appointing the Hon. Stanley Matthews, Chairman, and F. H. Short, Esq., Secretary.

The contracts were read, and the statement was made that a vote of two thirds of the stockholders would be required to ratify the lease.

There was some difference of opinion as to the expediency of this action.

Hon. Henry Stanbery said he was not prepared to accept hastily the offer made by the Atlantic & Great Western Company, and that he favored the appointment of a committee to consider the subject and report at a future meeting.

John K. Green, Esq., said that stockholders were as well prepared to vote now as they would be in a week from this time, the ques-

tion having been before them for several weeks.

Mr. Hooper made some statements in regard to the unsoundness of the Erie stock, and its unreliability as security.

Mr. J. W. Ellis referred to the opinion of Judge Matthews, relating to the contract proposed between the Erie, the Atlantic & Great Western, and the Cincinnati, Hamilton & Dayton Companies. He had perfect confidence in the assurance of Judge Matthews, that this contract was safely drawn and desirable to be made. He did not care any thing about the credit of the Erie road; he would as soon rely on it as on the Pennsylvania Central, as the ability of either to carry out the contract would depend upon the amount of business done on the consolidated roads. He did not think there would be any thing gained by delaying action.

Mr. Hooper inquired how the Erie road could make money out of this road when it had not itself made money out of it? He did not believe the project could be carried out. Five years would not elapse before it would be proven a failure.

Mr. L. Hommedieu said that if this lease was not ratified a road would be built by the Atlantic & Great Western from Dayton to Cincinnati within a year, and then the stock of the Cincinnati, Hamilton & Dayton would not be worth above 50 cents on the dollar. He knew that the Engineer of the Pacific Railroad had offered to build a road for the Atlantic & Great Western from Dayton city for two million dollars.

The Hon. H. Stanbery said that an abundance of legal questions would spring out of this lease. He had \$30,000 in stocks in the road. If he lost these he saw in the future a rich prospect for making it up in fees. He saw in it a difficulty, litigation and prospective loss. The Erie had nothing to lose; the Cincinnati, Hamilton & Dayton had everything to lose. This was a lease to the Atlantic & Great Western, but the latter being controlled by the Erie, it was virtually a lease to the Erie. The Erie corporation had no charter for any part of its road in this State, and in this view there was a question as to the legality of the transaction.

The Hon. Stanley Matthews said that the Erie had as much power to lease the Cincinnati, Hamilton & Dayton as the Pennsylvania Central had to lease the Central Ohio Railroad, and New York Central the Erie & Lake Shore Railroad. The Baltimore & Ohio now, through stocks, controlled the Marietta & Cincinnati Railroad.

At about 2 o'clock a motion to take a vote prevailed. At 3 o'clock the balloting closed with the following result:

For ratifying lease of Cincinnati, Richmond & Chicago Railroad Company—yeas, 10,386 shares; nays, 1,151 shares.

For ratifying lease to Atlantic & Great Western Railway Company—yeas, 15,384 shares; nays, 3,215 shares.—*Gazette*.

Receipts of the Western Union Railroad Company for the week ending February 14:

	1869.	1868.	Inc.	Dec.
Freight.....	\$8,930 76	\$6,524 33	\$2,396 43	
Passengers.....	2,440 55	2,762 85	137 70	
Express and Tel.	350 00	646 00		250 00
Mail.....	375 00	375 00		
Totals.....	\$12,496 31	\$10,202 18	\$2,534 13	\$250 00

Receipts from January 1, to February 14:

1868.....	\$65,831 86
1869.....	62,027 95
Decrease.....	\$3,803 91

Grand Rapids and Indiana Railroad.

THE BILL OF FORFEITURE AND TRANSFER INTRODUCED BY SENATOR STANDISH.

From Our Own Reporter.

LANSING, February 16, 1869.

The following is a copy of the bill, introduced by Mr. Standish in the Senate to day, which declares forfeit the land grant, etc., of the Grand Rapids and Indiana Railroad, and transfers the same to the Michigan Northern Railroad, and which was referred to the Committee on Judiciary and Railroads:

A bill to forfeit certain lands, privileges and franchises heretofore granted to the Grand Rapids and Indiana Railroad Company, and to confer the said franchises to the Michigan Northern Railroad.

SECTION 1. *The People of the State of Michigan enact:* That whereas by an act of Congress, approved June 3, 1856, certain lands were granted to the State of Michigan to aid in the construction of a railroad from Grand Rapids to some point on or near Grand Traverse Bay, and whereas said act was amended by an act approved June 7, 1867, whereby an additional grant was made to the State of Michigan to aid in the construction of a railroad from Fort Wayne, Indiana, to some point on or near Traverse Bay, in the State of Michigan; and whereas by another act approved March 3, 1865, the time in which said roads were to be constructed, was extended eight years beyond the time originally limited therefor; and whereas, said lands were conferred upon the Grand Rapids and Indiana Railroad Company by an act of the Legislature, approved February 14, 1857, and various acts amendatory thereof; and whereas, said corporation, heretofore known as the Grand Rapids and Indiana Railroad Company has expired by its own limitations under the 47th section of the general railroad law.

SEC. 2. Now, therefore, be it enacted that all and singular said lands, powers, privileges and franchises, heretofore by any law conferred in any way upon said Grand Rapids and Indiana Railroad Company, are hereby declared forfeited, and the same are conferred upon the Michigan Northern Railroad Company, a company organized under the laws of the State of Michigan, and said corporation shall have and enjoy all such lands, privileges and franchises in as full and ample a manner as if they had never heretofore been granted to or conferred upon said Grand Rapids and Indiana Railroad Company.

Provided, however, that said Michigan Northern Railroad Company shall construct and put in good running order at least 30 consecutive miles of first class railroad between Grand Rapids and Traverse Bay, north of and adjoining the 20 miles of railroad now being operated between Grand Rapids and Cedar Springs, on or before the first day of January, 1870, and shall annually thereafter complete and put in like running order 30 additional miles of railroad between Grand Rapids and Traverse Bay, and within the limits of said land grants, until the same shall be completed.—*Detroit Tribune*.

SLATE.—There were shipped from this place, via the Lehigh Valley Railroad, from April 1, 1868, to December 1, 1868, about 40,000 squares of roofing slates, or an average of 5,000 squares per month. At \$7.50 per square, the average price during this time, would sum up the nice little fortune of \$300,000.—*Slat-ington News*.

THE NEW RAILROAD PROJECTS.—In looking at the proposed air line of railroad from Detroit to Adrian, we find by estimates made by members of the committee, which will be reported at the meeting on Friday evening next, that the distance from Indianapolis to Detroit by this new line through Adrian will be 238 miles, whereas the present distance via Toledo, is 290 miles; the distance from Indianapolis to New York, via Detroit, will be 915 miles, whereas the present distance from Indianapolis to New York, via Toledo and Buffalo is 962 miles. It is claimed that by building the air line to Adrian, it will be joined by a through air line to Indianapolis, and thus secure the shortest possible route from St. Louis and the whole southwest, via Buffalo to New York. As the merits of this object will be laid before the meeting on Friday evening, it is important that our citizens should be present and see if Detroit can be benefited by new lines of railroad. It is we are informed, not a rival of the Hillsdale and Ypsilanti project, except so far as the aid of the city may be given to one to the exclusion of the other.

Important Railroad Meeting at Xenia.

A large meeting of railroad men and others interested met at Xenia, yesterday, to consider the new project of a railroad from Delaware to Xenia, and thence to Cincinnati via Lebanon. About two hundred were present from Delaware, Reading, Sharon, Mason, Lebanon, Waynesville, Plattsburg, London, White Sulphur Springs and Xenia, besides representatives of the Cleveland and Columbus, and other railroads.

D. McMillan, of Xenia, presided at the meeting, and R. G. Dunn, of Madison County, was Secretary. After general discussion of the subject in hand, a committee of five was appointed—including Mayor Wiltach, of Cincinnati—to devise ways and means to carry the project into execution. As we understand it, the Cleveland and Columbus Railroad Company expect that the Columbus and Xenia, and Little Miami roads will soon fall into the control of the Pennsylvania Central Company, which will cut off the communications of the C. and C. with Cincinnati. They will, therefore, be compelled to open a new route into Cincinnati. Two are open to them, and herein Dayton becomes interested. The C. and C. Company are rather favorable to the route from Delaware to Springfield, then to Xenia and thence to Cincinnati via Lebanon, because it is a little the shortest. But they are also interested in securing the greatest possible amount of business from Cincinnati over their line, and the Short Line route via Dayton, and thence up the Valley to Springfield, where the Delaware road—now owned by the C. and C. Company—terminates, is preferable for that reason. These points were considered at the meeting, and Mr. Hubby, President of the C. and C., intimated that if the road should be built the New York Central would supply the motive power. Among the advantages of the route via Xenia, it was stated that it is twenty-eight miles shorter than from Columbus via the C. and X. and L. M. Railroad.

At present we infer that the C. and C., working in its own and in the interests of the Lake Shore and New York Central roads, is prospecting for inducements, and will be governed in its choice of the two cut-offs above described by the inducements held out by people interested in opening the route.

The Short Line, so anxiously desired for many years by many of our people, now stands a better chance of building than ever before, but the chance must be looked after and pursued. The people along the proposed line from Springfield to Xenia, and from the latter point, are very much excited with the hope of getting the road built on that line, and are said to be making liberal offers to the C. and C. Company. As we view it the great corporations interested will be compelled to build a road over one or the other lines. They will enter Cincinnati on the north *via* the tunnel.—*Dayton Journal*.

Bituminous Coal Discovered in Montana— Revolution in the Fuel Market.

(From the Helena Herald, Jan. 3)

We were shown, yesterday, by Captain O'Bannon, at the Land Office, a coal stove in full blast—the first and only one yet put up in the Territory—fed by a superior article of bituminous coal from the recent discovery of Mr. Cooper, near the crossing of the Dearborn. The coal bed is about half a mile this side of the station, and near the stage road on the bluff. The vein is at this time nine feet thick, and the tunnel pierces it about thirty feet. The character of the coal improves with the progress of the tunnel, and the presence of tar in specimens is apparent to the senses. The discovery of this coal vein so near to the metropolis should cause a revolution in the fuel market of the Territory. We are informed that it can be brought and sold here at the low cost of about \$22 per ton, and as a ton of coal is equal to four or five cords of wood, its introduction would drive the latter at current figures entirely out of the market. Then, too, in the Jefferson and other silver and lead districts, there is a present and prospective demand for coal to be used in smelting. Now the furnaces use wood-coal, which has always ruled at high rates—too high, taken in connection with the price of labor, to warrant the working of other than the very richest description of ores, yielding 25 and 30 per cent. of metal. There are lodes only twenty miles distant from Helena that readily produce this large result, and we see no reason why they, and others less rich, can not be supplied with coal at the figures above given. This would justify the working of almost any discovery in that district, and the shipment of the metal East.

The Trip of the First Locomotive.

Major Horatio Allen, the engineer of the New York and Erie Railroad gives the following account of the first trip made by a locomotive on this continent:

"When was it? Who was it? And who awakened its energies and directed its movements? It was in the year 1828, on the banks of the Lackawaxen, at the commencement of the railroads connecting the canal of the Delaware and Hudson Canal Company with their coal mines, and he who addresses you was the only person on the locomotive. The circumstances which led to my being alone on the road were these: The road had been built in the summer; the structure was of hemlock timber; and the rails, of large dimensions, notched on caps placed far apart. The timber had cracked and warped with exposure to the sun. After about three hundred feet of straight line the road crossed

the Lackawaxen creek on trestle work about 30 feet high, with a curve of 355 to 340 feet radius." The impression was very general that the iron monster would either break down the road, or it would leave the track at the curve and plunge into the creek. My reply to such apprehensions was that it was too late to consider the probabilities of such occurrences; there was no other course than to make a trial of the strange animal which had been brought here at a great expense, but that it was not necessary that more than one should be involved in its fate; that I would take the first ride alone, and the time would come when I should look back to the incident with great pleasure. As I placed my hand on the throttle-valve handle, I was undecided whether to move slowly, or with a fair degree of speed; but, believing that the road would prove safe, and preferring, if we did go down, to go handsomely and without any evidence of fear, I started with considerable velocity, passed the curve over the creek safely, and was soon out of hearing of the vast assemblage. At the end of two or three miles, I returned without accident, having made the first railroad trip in the western hemisphere."

Wooden Railways.

A correspondent of the *Montreal Gazette* gives the following description of a wooden railway now in operation at Clifton, in northern New York, near the canal line, and on which immense quantities of iron ore are transported from the Adirondack mines:

"The grading is the same as for an iron road, except that stiffer grades can be ascended. The ties are of the ordinary description, but are not squared on any side, and on the Clifton road are placed at the usual distance of three feet apart, except on the trestles, where there are three ties to every two yards. In future, however, the engineer intends to put the three ties to every two yards, as he proposes heavy engines.

"The rails are of maple, six inches by four; but in future their shape will be altered a little, without increasing the quantity of timber, making them three and a half inches on top by seven inches deep, so as to be better adapted to the increased weight of engines—fourteen tons instead of ten. Notches are cut in the round ties to such a depth as to keep the bottom of the rail about two inches from the ground after the road is ballasted, and the rails project sufficiently above the notched tie to allow the flange of the wheel to pass. The rails are fastened to the ties by a couple of hard wood wedges, driven in opposite directions on the outside of the rail, within the notch. This has the effect of making the whole superstructure one solid mass, without the addition of any spikes or pins.

"In making the curves the rail itself is bent to the required shape, so that there is no angularity whatever in the lines of rails. The trestles are of the simplest description. They consist of two upright sticks of square timber immediately under the rails, let into a transverse stick, which are braced to the sticks of timber laid lengthwise, from one trestle to another, immediately under the line of rails, in each direction. This is further supported by a similar stick of timber at each side, from the head of the trestle to the base, in a slanting direction, the whole of which is let into a squared log at the base. The wooden rail is not a new invention, but Mr Hulbert, the engineer, has succeeded in making it available

without using a particle of iron in the whole structure, and has, moreover, demonstrated that such railways can be used for long distances at a moderate cost, and this through a country where an iron line, as ordinarily constructed, would be practically an engineering impossibility.

"Mr. Hulbert says that he is willing to contract to lay the superstructure of a wooden railway of his own improved construction, at the rate of \$1,500, American currency, a mile, where maple and hemlock can be obtained at reasonable rates.

Bridging the East River.

MR. McELROY'S PLAN.

At the regular weekly meeting of the Polytechnic Branch of the American Institute, held last evening in Room No. 24, Cooper Institute, Prof. Tilman in the chair, Mr. Samuel McElroy read the paper of the evening upon "The Best Means of Communication between New York and Brooklyn." Mr. McElroy's plan, as described in his paper, is not new in its general outline, but was very carefully and elaborately worked out in details. He proposes a solid pier, built up from the bottom of the river to a height of five feet above high water mark. The width of the proposed pier is 450 feet, and its top is arranged for three carriage ways, one along the center and one on either side. Between the central roadway and the outside ones substantial warehouses will be erected for the storage of goods. Two shipways will be constructed to allow the passage of vessels which will be closed by caisson gates, which, when shut, form bridges for the two outside roadways. In the body of the pier will also be constructed two tunnels, which will afford constant means of transit when the locks are open, and in which will be placed the telegraph wires, pneumatic tubes for the transmission of parcels, &c. Railroad tracks may be carried through them if desired. Mr. McElroy proposed to locate this bridge from the foot of Delancy street to South Sixth street, Williamsburgh, for reasons which he detailed at length, but the location he did not deem essential to the success of the plan. The entire cost of such a structure, at a liberal estimate, would reach \$6,000,000, or without the warehouses it could be built for \$3,500,000. The value of the seventy lots he estimated at \$3,000,000, so that the real cost of the entire structure would be about \$500,000. The advantages of the causeway over the bridge were that it affords more ample and secure means of transit between the two cities, and chiefly that by damming up the East river, a great amount of water which now flows out through it would be turned through the Narrows in time to keep the main ship channel of our harbor clear. Mr. McElroy showed by a large number of carefully collected statistics and figures from official sources, that the channel at the mouth of our harbor is gradually filling up, and that the present flow of water through it is insufficient to keep it clear. From the data collected by him he concludes that by cutting off the flow through the East river, the amount of water passing out by way of Sandy Hook would be increased about 15 per cent. The navigation of the East River, instead of being impeded by the construction of such a pier, would be rather improved, as the strong currents which now form the chief difficulty in

its navigation would be checked, and vessels could at all times come to the pier with slack water, and the pier would also form a barrier against the inflowing ice from the North river. Quite a spirited discussion took place upon the various points put forward by Mr. McElroy, which was participated in by Drs. Vanderweyde, Rich, Bradley and Richards, Mr. Emery, Mr. Fisher and the President, and it was voted to continue the subject to the next meeting.—*Tribune*

THE WESTERN FEVER IN ILLINOIS.—We have on a previous occasion asserted that "land grant bonds" could be sold in Europe by our Pacific Railroads as a means of construction. The following, from an Illinois correspondent of an agricultural paper, indicates the appreciation of the farming districts in the West, by those best able to calculate their value. The correspondent says:

"Every farmer who can sell out at a reasonable price, every foot-loose trader and mechanic, every laborer and every body else who can get together the means to emigrate, has his eyes turned to, and his heart set on, the promised land of the West and Southwest; while those fastened by poverty or circumstance are as uneasy as half-tamed geese with their wings cut, at those seasons when their free wild brethren triangulate and trumpet through the sky. As it is in New York and New England, so it is in Illinois; if the people had their own inclinations only to consult, 80 per cent. of the whole would move westward. But this movement is not confined to the States I have named; it extends over all continental Europe; it is a grand and vast movement of the Indo-European races, which, having filled Western Europe full, overflow into Eastern America."

The Walla Walla (Oregon) Statesman says: A gentleman who crossed the mountains by way of the Snoqualmie Pass, on Christmas-day, reports the snow on the summit at 2½ feet deep. This is the route the Northern Pacific Railroad most likely will follow in reaching tide water, and this report is important as showing the light fall of snow at that particular point. The Central Pacific crosses the Sierra Nevada range at an elevation where the snow frequently falls to the depth of twenty or thirty feet, thus practically intercepting communication during the winter months. The Northern Pacific Railroad will have no such difficulty to overcome.

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This Ticket Case having come into extensive use during the past two years, we would call the attention of those interested to its advantages:

It consists of horizontal bands attached to upright standards, so arranged, that the Tickets, which are suspended in packages of 20 to 30 each, (without being eyeletted or fastened together,) on hooks affixed to the bands, fall behind those suspended, in successive tiers, below, leaving the stubs only exhibited to view; each tier projecting forward of the one next above, sufficiently to prevent any pressure of one upon another; and sufficient space being made below the lowest band, to admit the longest package of Tickets.

It will be perceived that the stub of each Form of Tickets contained in the case, is thus brought before the eye of the Ticket Seller, and the several Forms being arranged in alphabetical or numerical order, the location of any particular Form can be instantly determined, and any number of Tickets, whether one or more, taken from the Case, without removing or handling others.

A drawer is made in the lower part of the Case, for a supply of Tickets from which to replenish the Case.

LIST OF PRICES.

For Tickets 2½ inches in width, and under. For Tickets over 2½ inches in width.

SIZE NO.	OF FORMS.	PRICES.	SIZE NO.	OF FORMS.	PRICES
1	64	\$37	11	64	\$38
2	96	40	12	96	42
3	144	46	13	144	48
4	192	54	14	192	57
5	256	62	15	252	65
6	320	70	16	320	75
7	400	80	17	400	85
8	500	90	18	480	95
9	600	100	19	600	110
10	720	115	20	700	120

Cases will be furnished by the undersigned, at the above prices, made in the best manner, with Black Walnut cornices and mouldings, finished in good style.

Cases will be furnished in Black Walnut, elegantly finished, at 25 per cent. additional to the above prices.

HALF CASES, (without partings on the doors,) will be furnished, finished plain, at 25 per cent. less than the above prices, for a corresponding number of Forms

When three or more Cases, of same size, are ordered at once, a suitable discount will be made.

Orders should always state the exact width of the Tickets for which Cases are desired.

Cases can be made adapted to Tickets of various sizes in one case, if desired; and the proportions of. Case may be made to suit any particular space, when required. Racks may also be made, on the same plan as the cases, and fixed to the doors of safes or vaults, or to the walls of offices.

Any parties desiring to make cases or racks for their own use, will be furnished with Patent Licenses by the undersigned, on reasonable terms, and also with working plans, if desired.

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L. WILLIAMS, Ass't Sup't, C. H. & D. R. R., Cincinnati.
J. H. WELLER, Ass't Sup't, D. & M. R. R., Dayton, O.
D. McLAREN, Gen'l Sup't, A. & G. W. R'y, Cincinnati
J. F. LINCOLN, Ass't Sup't, C. & I. J. R. R., Hamilton
O. W. SMITH, Gen. Ft. Agt. C. & I. C. R. R., Indiana, Aug. 2, [f.]

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Without Detention arriving in New York 3:15 p.m. next day, Sunday

2 Through Lightning Express Trains for New York, Boston, and all points East.

TIME TABLE OF EXPRESS TRAINS.

Leave Cincinnati.....	6.15am.....	7.10pm
" Dayton.....	8.35 ".....	9.30 "
Arrive West Salem.....	1.50pm.....	4.53am
" Leavittsburg.....	4.55 ".....	7.35 "
" Meadville.....	7.35 ".....	11.10 "
" Susquehanna.....	7.48am.....	11.29pm
" Paterson.....	2.25pm.....	6.03am
" New York.....	3.15 ".....	7.00 "
" Boston.....	5.45am.....	4.45pm

Sleeping Coaches on Night Trains the entire distance between Cincinnati and New York.

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—OF—

NEW-JERSEY.



On and after Monday, May 21, 1866, three Express Trains will leave New York daily (Sundays excepted) via Central Railway of New Jersey, and Allentown, leaving Pier 15 foot of Liberty street, North River, at 7:00 and 9:00 a.m. and 8:00 p.m. On Sundays, one Express Train at 8:00 p.m.

Passengers by this route save 60 to 130 miles, and Two Hours' Time over other Lines, with but one change of cars to Chicago or Cincinnati, and but two to St. Louis. Passengers front 75 East by Sound Boats or by Rail in the morning, will have time for Breakfast before leaving the City. Fares always as low as by other Lines.

State-room Sleeping Cars on Night Trains.

TRAINS FROM NEW YORK.

(Leave New York from foot of Liberty street, N. R.)

7:00 a.m.—CINCINNATI EXPRESS, for the West, arrives at Harrisburg 2 p.m., Pittsburg 12 night

9:00 a.m.—MORNING EXPRESS, for the West. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at the same time.

12:00 m.—WAY TRAIN, connecting at Easton with Lehigh Valley Railway to Mauch Chunk; at Reading with Philadelphia & Reading Railway for Pottsville, arrives at Harrisburg at 2:30 p.m. Without change of cars from New York to Harrisburg.

8:00 p.m.—EVENING EXPRESS, for the West with but one change to Cincinnati or Chicago, and but two to St. Louis. This train leaves New York Two Hours later than other Lines, and arrives at principal places West at same time.

TRAINS TO NEW YORK.

(Leave Harrisburg.)

9:15 p.m.—EXPRESS TRAIN from Cincinnati, arrives at New York at 6:00 a.m. next day.

3:00 a.m.—EXPRESS TRAIN, from the West, leaving Pittsburg at 4:20 p.m.; passes Harrisburg at 3:00 a.m.; Reading at 4:49 a.m.; Allentown at 6:00 a.m.; Easton at 7:09 a.m. Through cars from Pittsburg to New York.

9:05 a.m.—FAST LINE, from the West, leaving Pittsburg at 10:10 p.m.; passes Harrisburg at 9:05 a.m.; Reading at 10:52 a.m.; Allentown at 12:22 p.m.; Easton at 1:10 p.m. Through cars from Pittsburg to New York.

7:25 a.m.—WAY TRAIN, from Harrisburg, passing Reading at 10:40 a.m.; Allentown 12:20 p.m.; Easton at 1:35 p.m. Through cars from Harrisburg to New York. Arrives in New York at 5:20 p.m.

2:10 p.m.—FAST MAIL, from the West, leaving Pittsburg at 3:10 a.m.; passes Harrisburg at 2:10 p.m.; Reading at 4:30 p.m.; Allentown at 6:00 p.m.; Easton at 7:20 p.m. Through cars from Harrisburg to New York. Arrives in New York at 10:45 p.m.

H. P. BALDWIN, General Ticket Agent.

BEST ROUTE TO ST. LOUIS & CHICAGO.

Monday June 24.

INDIANAPOLIS & CINCINNATI



RAILROAD.

Three Through Trains Daily.

	Leave.	Arrive
St. Louis & Chicago Ex.....	7.00 A. M.	9.10 A. M.
Springfield & St. Joseph Ex.....	12.00 P. M.	4.30 P. M.
St. Louis & Chicago Ex.....	4.55 P. M.	12.15 A. M.

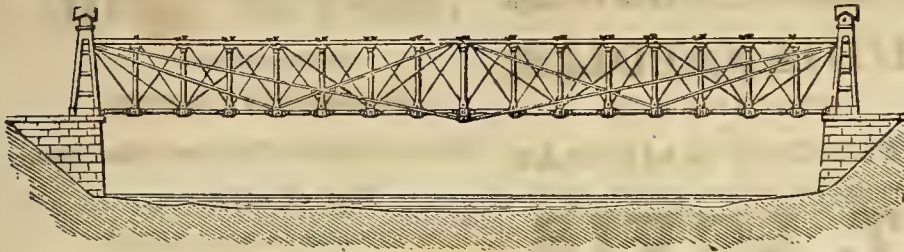
Sleeping Cars by this train for St. Louis and Chicago.

Accommodation Trains.

	Leave.	Arrive.
Lawrenceburg & Brookville Accommodation.....	5.15 P. M.	5.05 A. M.
Harrison Accommodation.....	10.10 A. M.	2.25 P. M.

Through Tickets can be obtained at the Burnet House, Spencer House and Gibson House offices; also at the Depot. The Passenger Depot of the Indianapolis & Cincinnati Railroad is within a few squares of all the principal hotels in the city.

J. F. RICHARDSON, Ass't Superintendent
F. B. LORD, Gen'l Ticket Agent.



(Plan of Bridge)

FINK'S PATENT IRON RAILROAD BRIDGE.

THE undersigned is prepared to manufacture and build in any part of the United States, and at reasonable terms,

FINK'S PATENT IRON BRIDGE,

In spans from 20 to 300 feet. The same is favorably known, well tested, and already extensively introduced; is stronger and more economical than any other Iron Bridge in use, requires no repairs, and no adjustment, but is perfectly adjustable.

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LOCOMOTIVE ENGINES,

In which they are adapted to the particular business for which they may be required, by the use of one, two, three or four pair of driving wheels; and the use of the whole, or so much of the weight as may be desirable for adhesion; and in accommodating them to the grades, curves, strength of superstructure, and rail work to be done. By these means the maximum useful effect of the power is secured with the least expense for attendance, cost of fuel, and repairs to Road and Engine.

With these objects in view, and as the result of twenty six years' practical experience in the business, by our senior partner, we manufacture five different kinds of Engines, and several classes or sizes of each kind. Particular attention is paid to the strength of the machine in the plan and workmanship of all the details. Our long experience and opportunities of obtaining information enables us to offer these engines with the assurance that in efficiency, economy and durability they will compare favorably with those of any other kind in use. We also furnish to order Wheels, Axles, Bowling or Low Moor Tire (to fit centers without boring), Composition Castings for Bearings, every description of Conner Sheet Iron and Boiler Work, and every article appertaining to the repair or renewal of Locomotive Engines.

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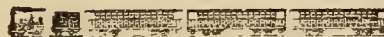
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*Productive Wells all
around them.*

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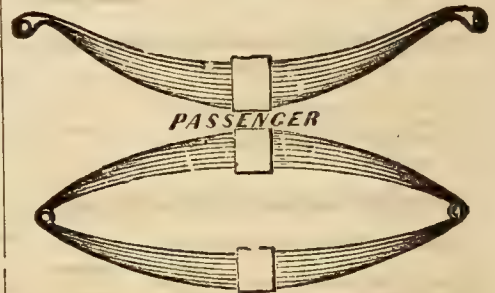
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Made at his Shops in Philadelphia. Employing only the most experienced workmen and BEST MATERIAL, he pledges himself to furnish a Spring of the greatest elasticity, and one which shall be uniformly reliable in its carrying weight.

All Springs tested to double their usual load.

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Shops—Seventeenth and Coates St. PHIL.

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Chilled Railroad Car Wheel, Ty

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WILMINGTON, DELAWARE,

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ORDERS executed promptly to suit the customer for the celebrated Wheels, either single or double plate with or without axles.

WHEELS FITTED

Hammered or Rolled Axles, in the best manner, on the shortest notice, and on the most reasonable terms.

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JNO. W. BROWN, General Passenger Agent. } Dec. '67.

Cincinnati, Hamilton & Dayton Railroad.

Trains run as follows, Sundays excepted:

	DEPART.	ARRIVE.
Indianapolis & Cambridge City..	7 00 A. M.	9 30 P. M.
Toledo & Detroit.....	7 00 A. M.	9 30 P. M.
Dayton & Sandusky Mail.....	7 00 A. M.	5 25 P. M.
Richmond & Chicago.....	7 00 A. M.	9 20 P. M.
Dayton Bellefontaine and Richmond.....	3 00 P. M.	10 30 A. M.
Indianapolis & Cambridge City..	3 00 P. M.	10 30 A. M.
Toledo, Detroit, & Canada.....	6 00 P. M.	10 30 A. M.
Hamilton Accommodation.....		6 45 A. M.
Richmond & Chicago.....	7 00 P. M.	9 20 A. M.
Hamilton Accommodation.....	7 00 P. M.	7 55 A. M.

Trains run SEVEN MINUTES FASTER than Cincinnati time.

For all information and through tickets, please apply at the old office, south-east corner of Broadway and Front; Bureau House Office, corner Vine and Baker streets, and at the respective depots. East Front and West Sixth streets.

P. W. STRADER, General Ticket Agent.
Omnibuses call for passengers.**JANUARY 5th, 1868.***Cincinnati to St. Louis Without Change of Cars.***Ohio & Mississippi Railroad,**

For St. Louis, Cairo, Louisville, Evansville, St. Joseph Jefferson City, and all points on the Lower Mississippi River, and on the the Illinois Central Railroad.

TRAINS RUN AS FOLLOWS:

	Morn. Ex.	Eve Exp.	Seymour Acc.
Leave CINCINNATI.	7 40 a.m.	10 10 p.m.	4 00 p.m.
Arrive SEYMOUR.	12 00 m.	2 00 a.m.	8 10 "
Leave "	12 20 p.m.	2 10 "	
Arrive VINCENNES.	5 15 "	6 35 "	
Leave "	5 20 "	6 40 "	
Arrive ODIN.	9 35 "	10 30 "	
Leave "	9 45 "	10 40 "	6 30 a.m.
Leave SANDOVAL.	9 55 "	10 50 "	6 40 "
Arrive ST LOUIS.	1 00 "	1 30 p.m.	9 40 "
Trains Arr. at Cin'ci.	6 10 a.m.	11 30 p.m.	12 00 m.

For tickets, or information apply at Office, 132 Vine Street; Corner Front and Broadway; and at Depot, Foot of Mill Street.

G. E. FOLLET Gen. Passenger Agent
J. W. CNLOGUE, General Superintendent.**Best Route to St. Louis and Chicago****INDIANAPOLIS,
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Great Through Passenger Route from CINCINNATI to

**ST. LOUIS,
CAIRO,
CHICAGO,**

Memphis, New Orleans, Springfield, Quincy Keokuk, St. Joseph, Des Moines, Omaha And all Rail and River Towns and Cities in the West, North west and South-west.

5 THROUGH TRAINS DAILY,
(Sundays excepted,) as follows:

	Leave.	Arrive.
Cambridge City & Chicago Express.....	7.00 am	10.50 pm
Indianapolis and Cairo Express.....	6.20 am	2.30 pm
Cairo and St. Louis Express.....	3.00 pm	4.08 pm
Springfield, Quincy and St. Joseph Express.....	3.00 pm	4.08 pm
Chicago Lightning Express.....	6.50 pm	11.30 am
St. Louis Lightning Express. Sunday instead of Saturday night.....	11.00 pm	6.15 am

No change of cars between Cincinnati, St. Louis and Chicago.

Elegant Sleeping Cars on all night trains.
ACCOMMODATION TRAINS.
Lawrenceburg Accommodation.....10.10 am 8.35 am
Harrison.....5.30 pm 9.15 am
Lawrenceburg.....4.45 pm 2.0 pm

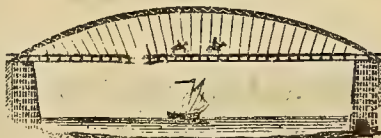
Through Tickets can be obtained at the Burnet House Office, corner of Third and Vine; River Office, corner of Walnut Street and River; and at Depot, corner of Plum and Pearl streets. The splendid Passenger Depot of the I. & C. Railroad is about a mile nearer the business center of the city than the Depot of any other railroad, and within a few squares of the Postoffice and principal hotels and Steamboat landings.

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4.15 (Express Monday excepted), 8.15 A. M.; 11.45 A. M. Express; 2.30 P. M.; 11.30 P. M. night.On Sundays, 4.30 A. M.; 11.30 P. M.
Leave Baltimore for North and West, 7.35 A. M.; 9.20 A. M. (Express); 1.10 P. M. (Express); 6.35 P. M.; 8.2 P. M. (Express)**SUNDAY TRAINS.**—Leave Philadelphia for Baltimore at 4.15 A. M., and 11.00 P. M. Leave at Baltimore for Philadelphia at 8.25 P. M.
Leave Philadelphia for Wilmington at 11.30 P. M. Leave Wilmington for Philadelphia at 8.30 P. M.

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